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British Association for the Advancement of Science Outline

PORTSMOUTH MEETING, 1911

A CATALOGUE

 \mathbf{OF}

DESTRUCTIVE EARTHQUAKES

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А.D. 7 то А.D. 1899

By JOHN MILNE, D.Sc., F.R.S.



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CATALOGUE OF DESTRUCTIVE EARTHQUAKES.

By J. MILNE, D.Sc., F.R.S.

INTRODUCTION.

The following small Catalogue, which has taken several years to compile, is issued under the auspices of the Seismological Committee of the British Association. It represents excerpts from manuscripts and publications received from most countries in the world.

In 1888, at the end of a Report to the British Association, Robert Mallet says: "We have thus extracted all the information that our catalogue, or indeed any further cataloguing of earthquakes seems capable of giving us." Farther on he remarks, "In conclusion, I would repeat my conviction that a further expenditure of labour in earthquake catalogues of the character hitherto compiled, and alone possible from the data to have been compiled, is now a waste of scientific time and labour." To appreciate the opinion which is here so strongly expressed it is necessary to examine the catalogues to which reference is made. Although in several respects they exhibit differences, they have also strong resemblances. From the earliest historical times to the 17th century, the entries are comparatively few in number as compared with entries made subsequently. As Mallet puts it, the expanding character of catalogues has followed the progress of human knowledge, discovery, and diffusion of mankind. The records before the Christian era, and prior to the year 1700, are practically confined to occurrences in Southern Europe, China and Japan. It may, however, be noted that when Mallet wrote, records relating to the two last-mentioned countries (to which we may add India) were but few in number. In early times the entries for all countries refer for the most part to widespread disasters. References to small disturbances were never chronicled, or if they were, they have been lost. Only that which was large survived. As the material civilisation of Europe spread, new countries were settled, printing became common, and records of natural phenomena became more numerous. They however changed in character. Small events found a place in history, with the result that in the compilations referring to the last 300 years, we find megaseisms and microseisms side by side. The characteristics of catalogues to which Mr. Mallet refers are therefore as follow: First, the entries for early times, although

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comparatively few in number, are fairly homogeneous in their character. Secondly, the entries for recent times are comparatively numerous but they are extremely heterogeneous. References to cataclysms are lost amid long lists of mere earth tremors. Efforts which have resulted in the creation or extension of faults and the devastation of districts stand side by side with references to "aftershocks" or slight adjustments in the settlement of strata which may not have rattled a window or awakened a sleeper.

Although much time has been expended on the analyses of these catalogues it is not surprising to find that the outcome has been more suggestive than definitive, and but little has

been learned.

The present Catalogue is an attempt to give a list of earthquakes which have announced changes of geological importance in the earth's crust; movements which have probably resulted in the creation or extension of a line of fault, the vibrations accompanying which could, with proper instruments, have been recorded over a continent or the whole surface of our world. Small earthquakes have been excluded, while the number of large earthquakes both for ancient and modern times has been extended. As an illustration of exclusion, I may mention that between 1800 and 1808, which are years taken at random, I find in Mallet's eatalogue 407 entries. Only 37 of these, which were accompanied by structural damage, have been retained. Other catalogues such as those of Perrey and Fuchs have been treated similarly.

The large catalogue of Count F. Montessus de Ballore, stored in the library of the Geographical Society in Paris, occupies 26 metres of bookshelves and contains about 140,000 entries. In the light of recent researches (see Geographical Journal, Jan. 1910) which indicate that 30,000 earthquakes may occur annually, the number of entries in the catalogue of Montessus cannot be regarded as abnormal. If the seismicity of the world has been constant during the last 1900 years, the number of earthquakes which have taken place during this period may have been 60,000,000. If we exclude small disturbances, and only consider world-shaking earthquakes, which at the present time take place at the rate of about 60 per year, these would during the same interval have numbered some 100,000. The entries in the present Catalogue are less than Several reasons for the smallness of this number compared with what we should expect to find in a complete list, have already been indicated. To these it must be added that it has only been possible within the last few years to record disturbances originating in oceanic beds and in uninhabited regions. It is these instrumental records made during the last 10 years which have enabled me to give estimates of the total number of large earthquakes occurring in the world per annum. A list of earthquakes, each of which has been recorded over a

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hemisphere or the whole world since 1898, will shortly be

published as a supplement to this Catalogue.

In addition to this, I may add that during the last half century, archives previously unknown or inaccessible have become available. The *Jishin Nendaiki*, or Earthquake Calendars of Japan and Chinese histories have been translated, whilst almost every civilised country has found one or more specialists to work out its seismic history.

Foundation of Catalogue.—As a foundation for the present list I first made excerpts from the catalogues of Mallet, Perrey and Fuchs. This was extended from lists culled from catalogues and histories of many foreign countries, a work which involved translation from Chinese, Japanese, Russian, Icelandic and other languages. In this I received great assistance from Mr. E. H. Parker, Professor of Chinese at the University of Manchester, my assistant, Mr. Shinobu Hirota, Mr. W. A. Taylor, Mr. C. A. Gosch, Monsieur E. Scavenius, the Rev. M. S. Masó, S.J., Mr. H. Hope-Jones, Count Montessus de Ballore and other gentlemen to all of whom I now offer my sincere thanks. The back numbers of The Times, Nature, and other papers gave a certain amount of information. Lastly, I have had the advantage of a large number of lists and documents relating to earthquakes collected from various parts of the world and put at my disposal by the Foreign, Colonial and India Offices. To all these sources of information I will refer in detail. In sifting this somewhat large quantity of material, it might be suggested that the process of elimination may occasionally have been too strict. For example, small earthquakes may have been rejected which were really the surface record of shocks which were megaseismic at their origin. Inasmuch as the rejections are confined to what are clearly aftershocks, and to disturbances which were only felt at one or two places and that experience has shown that vibrations which can be felt have not travelled very far, I do not think the errors due to omission are numerous. Not only have certain small earthquakes been omitted, but whenever the information on which the accounts of large ones has been based have been of a doubtful character, these also have been rejected. For example, Mallet refers to disturbances which Barrata, the Italian seismologist, either omits or considers to be founded upon information which is unreliable. Mr. W. A. Taylor points out that the earthquakes of 843 and 846 in Naples, 950 in Syracuse, 981-995 in Sicily, 1007 or 1008 in Apulia, and 1245 in Nardo, are disturbances of a doubtful character, and are spoken of as mendacious. I have also omitted earthquakes which are said to have accompanied the birth and death of sacred personages and martyrs. At the birth and death of Christ, at the martyrdom of St. Agatha, at Calabria in A.D. 255, the day of burial of St. Agnes, A.D. 304 and at the decapitation of Sts. Valantino and Ilaria in A.D. 306 we are told great earthquakes are said to have taken place.

That great earthquakes took place in years approximating to certain of these dates there is no doubt, but we must remember that to fix a date in those early times is extremely difficult.

The Catalogue attempts to give the year, month and occasionally the hour when a large earthquake occurred; the country or district shaken; the names of the places most disturbed, the intensity of the movement and the authority from which information has been derived.

Dates.—The entries in this Catalogue embrace the period A.D. 7, November 10th, to A.D. 1899, December 31st. For recent times it is easy to give a date but for ancient times and in

particular countries it is often difficult.

Not only has confusion arisen owing to differences in chronologies, but also owing to changes in *style* and as the early workers were probably without tables enabling them to transpose the dates of one system into that of another, mistakes have been made. It is therefore not surprising that we meet with two or more dates for the same event. In this Catalogue, in the majority of cases, the dates adopted are those found in the catalogues mentioned, but when translating new material as for example that from China and Japan, European dates have been computed. For these latter it is seldom that the hour has been mentioned. Where it is given as that of *the horse*, *the cow*, *the monkey*, or by some other animal name, this has been omitted, its reliability being doubtful. In the few cases where hours are noted they are expressed in Greenwich mean Civil Time, in which 24 hours corresponds to midnight and 12 to midday.

The dates given for China, Japan and Korea have been computed from tables published by the late William Bramsen, and lately republished in the Transactions of the Asiatic Society of Japan by the Rev. E. W. Clement who adds comparative chronological tables of the Christian Era, Japanese Eras and Emperors, Chinese Eras and Emperors and Korean Kings, with years of the Sexagenary Cycles from 660 B.C. to 1910 A.D.

Although a particular day is usually specified as the one on which an earthquake took place, it must be remembered that these may have been "foreshocks" and "aftershocks" in previous

and subsequent dates.

Names of Countries and Places.—The names of Countries, Provinces, Departments, &c., together with political boundaries have during historical times had many changes. So far as possible the names used are those given by the authorities quoted, and correspond to names found in an English atlas. Provinces, Departments, Counties, States and Districts are given in parentheses. For example (Florence), (Campobasso), (Cosenza) indicate Provinces, while Florence, Campobasso, Cosenza indicate towns. Places which suffered most are printed in italies. In certain instances Districts, Towns or Islands, like Savoy, Nice and Malta, may appear to have the wrong country prefix. Savoy and Nice are now attached to France,

and Malta to Great Britain, but geographically they belong to Italy. Earthquakes which have been serious in two or three countries, and have originated on borderlands, may be prefixed with the name of either country. When a town has now or has had in the past more than one name, I have adopted that which is most familiar in the English language. Where I have found the name of a place or district differently spelt in three modern atlases, as for example Provinces in China, and again spelt differently by sinologues, so far as possible I have adopted that of the authority quoted. I have not adopted it in cases where the spelling might make the name of the place unrecognisable, for example a city in Japan known as Kobe is sometimes spelt by sinologues as Kaube.

For a certain number of place names in China I have adopted the spelling given to me by Prof. E. H. Parker, but for the majority of places in that country I have used that given in a geographical dictionary of the Cities and Towns of China by G. M. H. Playfair. In these we often find the suffix Fu. means a prefecture or one of the largest sub-divisions of a province. In a few instances it has been difficult to identify the position of a town. For example, San José in South America may mean one out of at least 37 places. In that Continent in particular, we frequently meet with many towns and villages of the same name in a single country. Difficulties have also been occasioned in the identification of place names which during historical times have passed out of existence. To criticise my spelling is an easy matter. All I have tried to do has been to make a text intelligible. The atlases used have been Stieler, Harmsworth, Bartholomew, and Phillip's. A useful set of volumes in tracing out place names has been "The Gazetteer of the World" and its companion atlas. Localities which could not be found in these works have been referred to Mr. John Bolton, F.R.G.S., who has very kindly solved many difficulties.

Intensity of Earthquakes.—I have indicated the intensity

of earthquakes by the Roman numerals I. II. III.

This means that an earthquake had an intensity sufficient to crack walls, break chimneys, to shatter old buildings or to produce slight cracks in the ground. It implies an acceleration or rapidity in the change of velocity of the surface of the ground of 1000mm. or 3ft. per sec. per sec. means that each back and forth vibration of the ground corresponded to the jerk we should experience on a truck which commenced to move at the rate of 3ft. per sec. or when moving at that rate it was suddenly stopped. When this takes place the destructivity is usually confined to a town or village and the radius of the area effected will not exceed 5 miles.

II. With earthquakes of this intensity the acceleration is 1500mm. or 5ft. per sec. per sec., and its effect will have a radius of 20 miles. Buildings may be unroofed or shattered and some may fall, the ground may be badly cracked in places and

small landslips occur.

III. Earthquake with this intensity are those which destroyed towns and devastated districts. The ground has been faulted and fissured whilst from these openings water, mud, and sand may issue. In a hilly country landslips will be common. The acceleration may exceed 3000mm. or 10ft. per sec. per sec. Beyond the meisoseismic area up to a distance of 100 miles the effects produced may be similar to those of Class I.

The origin of all these earthquakes may generally be assumed to be along the line of fault or fracture in the earth's Motion sufficient to cause destruction may extend to the right and left of such a line to distances of 100 miles. earthquakes of Class I this distance may not exceed 5 miles. Should the fault or faults run parallel to a mountain range, which is commonly the case, it is rarely that violent motion will extend beyond such a barrier. Destruction frequently takes place along the length of the valleys. In consequence of these limitations and extensions, the area violently shaken is usually eliptical in form, the major axis of an elipse corresponding to the length of the fault or line from which the initial impulse or impulses have originated. Tele- or cryptoseismic motion which cannot be felt, but which can, with proper instruments, be recorded, does not appear to be limited by mountain barriers, but extends farther in the direction of the primary impulses or at right angles to fault lines than it does in the direction of For example, the movement which caused destruction in Central California on April 18th, 1906, originated along a line of faulting 400 or more miles in length. This ran parallel to the coast of California. The most violent impulses occurred near to the centre of this line but their destructive effects were bounded on the East by the Sierras and other ranges about 150 miles distant. Very marked teleseisms however passed this barrier and extended in the direction of the initial effort round the world. The corresponding teleseismic records obtained from South America were, however, comparatively small. Notes on this subject will be found in British Association Reports, 1908, p. 74, and in Nature.

PRINCIPAL SOURCES OF INFORMATION.

Mallet's Catalogues.—The Catalogues of Mr. Robert Mallet are to be found in the British Association Reports for the years 1852-8-4. For each entry he gives one or more references to the sources from which he obtained his information. His first entry, 1606 B.C., which is given on the authority of Exodus, XIX., 19, and his last, 1842 Dec. 4, for which seven references are given from seven foreign publications. In the early part of his work we find many Biblical references which are intercalated with or followed by the names of ancient writers, amongst

whom we find Strabo, Herodotus, Livy, Thucydides, Justinus, Orosius, Julius Obsequens, Tacitus, Seneca, Theophanes and many others. Humboldt and V. Hoff are quoted for early and for late dates. Dom. Bouquet is often quoted. We also find references to Matthew of Westminster, the Edinburgh Encyclopædia, Bertrand, and Merian both in the "Collection Académique," The Gentleman's Magazine, Philosophical Transactions of the Royal Society, Silliman's Journal, various books of travel, the Gazette de France, Poggendorff's Annalen, Journ. des Débates, &c. At the end of his Report in 1858 he gives a catalogue of works covering 16 pp.

Catalogues and Memoirs by M. Alexis Perrey .- A list of Memoirs by M. Perrey, which are 59 in number, is given by Mallet in his British Association Report for 1858. In Perrey's bibliographical catalogues, published in 1855-56, there are references to 1837 different works on seismology. His earthquake catalogues published in "Mémoires de l'Académie de Dijon" and in "Bulletins de l'Académie Royale de Bruxelles" contain records from 1842-64. They are a continuation of the

work of Mallet.

Catalogues of Dr. C. W. Fuchs.—These catalogues appear in the "Neues Jahrbuch für Mineralogie, Geologie und Palæontologie" vols. 1866 to 1872. These refer to earthquakes of 1865-1871 inclusive. In the Jahrbuch der K. K. Geologischen Reichenstalt 1873 Band XXIII to 1877 Band XXVII we find registers of earthquakes for 1872 to 1876. Catalogues by Fuchs also appear in the "Mineralogische und Petrographische Mittheilungen," Neue Folge Band I to VIII, they contain references to earthquakes 1877 Jan. 2, to Nov. 6, 1884. This work, with the exception of the years between 1870 and 1877, is a continuation of Perrey's work, but it is by no means so complete.

There are many catalogues referring to earthquakes in general prior to Mallet, but I do bot know of any subsequent to these collated by Fuchs. Since 1870 however, many catalogues referring to countries or regions have been compiled.

Italian Records.—Mario Baratta, in his "I Terremoti d'Italia," published by Fratelli Bocca, Turin, 1901, gives in a volume of 950 pp. accounts of 1,364 earthquakes which have shaken the Italian Peninsula. The date of the first is A.D. 1 and of the last 1898. Each earthquake is discussed and in many instances small maps are given showing the area disturbed. References to authorities occupy 103 pp.

Austrian (Central) Records.—These have been abstracted from a "Chronologische Ubersicht der Wiener Erdbeben" by P. v. Radics, see Die Erdbebenwarte 1908-1909 pp. 118-141.

Russian Records.—In the Memoirs of the Imperial Russian Geographical Society, vol. XXVI there is a catalogue of the earthquakes of the Russian Empire, by Mushketof and Orlof. It contains 2,574 entries. An abstract of this is given in the British Association Report for 1910. Many of the disturbances extended into or originated in Chinese Territory.

Chinese Records.—These have been obtained from several

sources.

1. A catalogue by Ed. Biot, published in the "Annales de Chimie et de Physique." Tome II, 1841, p. 372. It contains 480 references.

2. A translation made by Mr. Shinobu Hirota of a list of Chinese earthquakes by Professor Omori, published in Chinese idiographs in the Proceedings of the Earthquake Investigation Committee of Japan, vol. XXIX, published in Tokio. In the British Association Report for 1908 an abstract of this catalogue and that of Biot has been given by Mr. Hirota.

3. A list abstracted and translated by Professor E. H. Parker from the Tung-Hwa-Lu. This work consists of about 100 vols., to read and index which occupied Professor Parker four years. The earthquake list comprises the period 1643-1872. The English translation is to be found in the British Association

Report, 1909.

4. An abstract also made by S. Hirota from a "Catalogue des Tremblements de Terre, Signalés en Chine," par le R. P. Pierre Hoang, published by La Mission Catholique in Shanghai, 1909. This is a work of 298 pp. The first entry is 1767 B.C. and the last 1896 A.D. In it the same earthquake is repeatedly entered at the different places at which it was noted. For example, an earthquake which took place on July 24 and 25, 1668, is notified at 203 places. These are found in different parts of the volume.

The information derived from these different sources, together with those obtained from the Russian catalogue, are by no means always in agreement. It is often for example difficult to decide whether the date for an earthquake refers to its time of occurrence or to the time when it was notified at some. Imperial City. For this reason some of the dates given in the present catalogue are not strictly in accordance with those published in the British Association Report.

Formosan Records.—Records relating to Formosa have been translated and abstracted by Mr. S. Hirota from a list of Formosan earthquakes published in idiographs by Mr. Kondo and Professor Ogawa (see Publications of the Earthquake

Investigation Committee of Japan, vol. LIV).

Japanese Records.—The entries from Japan have been

obtained from the following sources:-

1. From a catalogue by Professors. Sekya and Omori, Proceedings of the Earthquake Investigation Committee of Japan, vol. XLVI. This, which is in Japanese, was abstracted by Mr. Hirota.

2. A Catalogue by Professor J. Milne published in the Transactions of the Seismological Society of Japan, vol. III.

p. 65. This is a compilation made from the translations of 64

different works in Japanese characters.

3. Catalogue of Japanese Earthquakes by Dr. Edmund Naumann, Mitt. d. Deutsch. Gesellschaft f. Natur u. Volkerkunde Ostasiens, Aug. 1878.

4. Destructive Earthquakes in Japan by Dr. T. Hattori,

Transactions of the Asiatic Society of Japan, vol. VI, part 2.

Indian Records.—A great number of these have been taken from a list given by Thos. Oldham in the Memoirs of the Geological Survey of India, vol. XIX, part 3. Other references are to be found in the Records of the Geological Survey of India, vol. XVII, part 2, vol. XVIII, parts 3 & 4, vol. XXVI, part 2. The Journal of the Asiatic Society of Bengal, vol. XLVII, part 2, pp. 131-140. Proceedings of the Asiatic Society of Bengal, March 1883, pp. 60-66.

British Records.—These were taken from the "East Anglian Earthquake of 1884" by R. Meldola and W. White, published by the Essex Field Club and Macmillan & Co., London, and also from an excellent catalogue by W. Roper, printed in Lancaster,

1889. His list of references occupies two pages.

Icelandic Records.—These were abstracted by C. A. Gosch, Esq., from "Jardskjálftar á Sudurlandi" and "Landskjálftar á Islandi," by Thorvald Thoroddsen, Copenhagen, 1899-1905. A second abstract of this work was received from the Hon. Sir

Allan Johnstone, British Minister in Denmark.

Central American Records.—These were taken from Tremblements de Terre et Eruptions Volcaniques au Centre-Amerique par F. de Montessus de Ballore, published at Dijon, Imprimerie et Lithographie Eugene Jobard, 9 Place Darcy, 1888. Emilio Böse in his "Temblor del 14 de Avril de 1907" published by the Instituto Geologico de Mexico, 1908, gives a list of destructive earthquakes which have occurred in or near to Acapulco.

Mexican Records.—A full list of destructive earthquakes which have taken place in Mexico is given by D. Juan Orozco y Berra, in Memorias de la Sociedad, Cientifica "Antonio Alzate," commencing in Tomo 1, números 6 y 7, ending in número 8. His first date is 1460 and his last 1899. An abstract in the Spanish language of this work I received through the Foreign Office from His Majesty's Representative in Mexico, His Excellency Reginald T. Tower, C.V.O. From 1899 to 1909 entries are given which are not found in the original work.

Peruvian Records.—Through the Foreign Office I received from Lucien J. Jerome, Acting Chargé d'Affaires, a list of earthquakes which have taken place in Peru, drawn up by Mr. H. Hope-Jones, a member of the Geographical Society of Lima.

Chilian Records.—Through the Foreign Office and His Excellency H. C. Lowther, I received from Count F. de Montessus de Ballore a provisional list of destructive earthquakes of the Southern Andes, south of latitude 16° (S. Peru,

Chile, Bolivia, W. Argentina), see Report, British Association, 1910.

United States Records.—The records for the United States were chiefly collected by Prof. Harry Fielding Reid, Johns Hopkins University, Baltimore. He obtained his material from the following sources:—Holden's Catalogue of Earthquakes on the Pacific Coast, 1769 to 1897, Smithsonian Miscellaneous Collection, 1087, McAdie's Catalogue of Earthquakes on the Pacific Coast, 1897 to 1906, Smithsonian Miscellaneous Collection, part of Volume XLIX, Historical Notes on the Earthquakes of New England 1638 to 1869, William T. Brigham, Memoirs of Boston Society of Natural History, Volume II; "Note additionelle" by A. Lancaster, same; Rockwood's lists in the American Journal of Science; Dr. E. Deckert's paper on "Die Erdbebenherde, etc., von Nord-America, etc." in the "Gessell-schaft für Erdkunde," Berlin, 1902; C. D. Perrine, Earthquakes in California, U.S. Geological Survey, 1895.

Prof. W. H. Hobbs, in his volume on "Earthquakes,"

describes certain heavy shocks.

West Indian Records.—Records of West Indian earthquakes have been largely taken from Government Reports printed in Jamaica, after the destructive earthquake of January 14, 1907.

Philippine Records.—A list of these has been published by the Rev. Miguel Saderra Masó, S.J., Assistant Director of the Weather Bureau in Manila. It contains an appendix for the Marianas Islands. The entries run from 1599 to 1909.

East Indian Records.—Long lists of earthquakes which have taken place in the Dutch East Indies have been published annually since the year 1865. They are by different authors and are to be found in the "Natuurkundig Tijdschrift voor

Nederlandsch Indie."

Official Documents.—These are represented by a fairly large collection of letters, registers and other papers referring to destructive earthquakes in various parts of the world. They were brought together by the Foreign, Colonial, and India Offices, with the assistance of representatives of His Majesty's Government in Foreign Countries, Colonies and Indian Empire.

It is not for one moment supposed that this Catalogue is free from omissions and mistakes. Should a reader notice them I trust he will give me an opportunity of rectifying the same either in the appendix now in preparation or in some

future publication.

JOHN MILNE.

SHIDE,

ISLE OF WIGHT,
ENGLAND,
FEBRUARY, 1912.

LIST OF ABBREVIATIONS.

B. refers to Baratta (Italy).

Bi. "Biot (China).

Bo. "Böse (Mexico).

C.V. ,, Ch. Vélain (Italy).

D. , Deckert (N. America).

F. ,, Fuchs (General).

F.R. " Fielding Reid (U.S.A.).

H. "Hirota (China, Japan, Formosa).

H.J. ,, Hope-Jones (Peru).

Ho. " Hoang (China).

M. ,, Mallet (General).

M.H. " Maxwell Hall (Jamaica).

Mi. ,, Milne (Japan).

Mon. ,, Count Montessus de Ballore (Central and South America).

M. & O., Mushketoff & Orlof (Russia and Asia).

M. & W.,, Meldola & White (Britain).

N. ,, The Journal "Nature" (General).

O. ,, Omori (Japan and China).

Ol. , T. Oldham (India).

O.B. ,, Orozco y Berra (Mexico).

O.D. , Official Documents (General).

O.N.T. " Natuurkundig Tijdschrift voor Nederlandsch-Indie (Dutch East Indies).

P. " Perrey (General).

Pa. " Parker (China).

Pe. ,, Perrine (California).

R. "Roper (Britain).

Ra. ,, Radics (Austria).

R.S. ,, E. Rudolph and S. Szirtes (Colombia and Ecuador).

S.M. " Sadera Maso (Philippines).

Th. ,, Thoroddsen (Iceland).

Ti. ,, "The Times" Newspaper (General).

I, II, III See p. 653.

Departments, Provinces, Counties, Districts are in parenthesis. Localities most severely shaken in Italics.

CATALOGUE OF DESTRUCTIVE EARTHQUAKES.

```
A.D.
                                              China (Shensi), The Imperial City Changan, now Hsian and the northern district III H.
                   Nov. 10
                                              Italy, Rome II
Asia Minor III
    15
                                                                              11
                                                                                       В.
    17
                                                                                       M.
    18
                   Mar. 18
                                               Italy, Reggio (Calabria), Sicily II
                                                                                                                             В.
    20
                                               Italy, Rome
                                                                            Ì
                                                                                   В.
    25
                                               Italy, Rome
                                                                             Ι
                                                                                    В.
                                              Italy, Rome I B.
Asia Minor, Bithynia and Palestine
    \overline{27}
    33
                                                                                                                                 1
                                                                                                                                        Μ.
                   Oct. 23
    46
                                                               Earthquake in
                                                                                                        forty-two
                                                                                                                                  counties,
                                                                                                                                                        Nanvang
                                              (Honan) III H.
Italy, Pompeii, Herculaneum, Naples and other places in
    63
                                                           (Campania)
                                                                                        \mathbf{III}
                                                                                                    в.
    68 \text{ or } 69
                                               Italy, Chietino in the (Abruzzi) II
                                                                                                                                 В.
                                               Italy, Charles in the state of 
    77 or 78
                   Nov. 23
    79
                                                                            1
                                                                                  в.
    85
                                               Italy, Rome
                                                                            \mathbf{II}
    94
                                               Italy, Rome
                                                                                     В.
  103
                                               England (Somersetshire)
                                                                                                        Ι
                                                                                                              M. & W.
  109 or 110
                                               Asia Minor, Galatia
                                                                                            III
                                              Italy, Rome II B.
China (Honan), The Imperial City Loyang, Honan Fu.
  116
  119
                   Mar. 11
                                                           It was felt over forty-two counties III H.
  121
                   Oct. 10
                                              China, thirty-five counties were shaken and towns damaged
                                                           Ш
                                                                    Ĥ.
                                              China (Kansu), The Imperial City and Hanyang, now
Fuchiang, Kungchang Fu III H.
  128
                   Feb. 23
                                               West of Scotland I M. & W.
  132
                                               China (Kansu), Imperial City and Chinching in Lanchou
  138
                   Mar.
                                  1
                                                          Fu, Lungshi in Kungchang Fu III H.
  144
                   Feb.
                                               China (Kansu), Liangchou Fu, and six neighbouring dis-
                                                                           111 H.
                                                           tricts III
  177
                                               Italy, Sicily
                                                                                       в.
                                               China (Kansu), Chiuchuan in Kanchou Fu III
  180
                   Jan.
                                                                                                                                                            H.
                                               England (Brecknockshire)
  204
                                                                                                            I M. & W.
                                              England (Breekhockshire) I M. & W.
Wales, Caerleon II B.
China (Honan), Loyang in Honan Fu II • H.
Italy, Vieenza II B.
Italy, Verona II B.
Italy, Verona II B.
Italy, Rome III B.
Italy, Vieenza, Padua III B.
Italy, Vieenza, Padua III B.
  205
  234
                   Dec.
  238
  243 or 245
  254
  258
  260-61
                                               England (Cumberland)
                                                                                                            M. & W.
  261
                                                                                                   1
                                                                                                  M.
  262
                                               Asia Minor, Libya
                                                                                         I
  286
                   March
                                               China (Ssuchuan), Chushih of Chienwei in'Chiating Fu and
                                              Yinping now Lungan Fu II H.
England, Worcester I M. & W.
China (Hunan), Changsha Fu and (Kuangtung), Nanhai,
  287
  288
                   June
                                                           Canton and eight districts I
  290
                   July 24
                                               Italy, Lodi in (Lombardy) II
                                                                                                                    В.
                                               China (Ssuchuan), Chengtu III H.
China, Shangku, Hsuanhua Fu, comprising the north
part of (Chihli) III H.
  294
                   June
  294
                   Sept.
                                               China (Honan), Kaifeng Fu, Nanyang Fu II
  294
                   Dec.
                                                                                                                                                        H.
  300
                                              Italy, Atella in the Basilicata I B.
China, Luling in Chian Fu in Yuchang, literary name of
  319
                   Jan.
                                                           (Kiangsi); (Hupeh), Wuchang and Hsiling, now
Yichang Fu II H.
                                               China (Shansi), Chishan in Taiyuan Fu III
  319
                   June
                                               Italy (Campania)
  324 or 344
                                                                                        III
  326
                                               Italy, Sicily
                                                                             Ш
                                                                                         в.
                                               Italy I B.
  341
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A.D.
                              Armenia I
                                                 M. & O.
341
                              Scotland, Edinburgh
353
                                                              II
                                                                     R.
                              Italy, Sicily II B.
Italy, Sicily and Reggio (Calabria) III B.
Italy (Venetia), Padua and Belluno; (Lombardy); Spoleto
357
362, 365, or 369
365 or 369 July 21
                                      (Perugia) and Trevi (Umbria)
                                                                                    III B.
                              Italy, Benevento II B.
Asia Minor, Nicia or Isnik III Ol.
Italy, Sicily, and violent in Alexandria in Egypt, Crete
and Greece III B.
369
375
         July 21
376
                              and Greece III B.
Italy, Rome I B.
China (Kiangsi), Nankang Fu, Chian Fu I
392
412
        Jan. to April
                                                                                                 H.
                                                         I Mi.
416
            Aug. 23
                              Japan (Kawachi)
                              Palestine III M.
419
                              Falestine III M.
England (Cornwall) II M
Turkey, Constantinople II
Turkey, Constantinople II
Italy, Rome II B. & M.
Asia Minor, Antioch III
                                                                    M. & W.
424
427
                                                                    III
                                                                  III
441
441-55
457 ?
                                                                      Oł.
                              China, Yenchou in Lu and the south part of (Shantung)
462
            Aug. 16
                                           H.
                              Italy, Ravenna (Emilia), Rome II
Asia Minor III M.
467
471 or 472
                              Italy, Rome II
477
                                                        В.
                               England, Canterbury
                                                                I M. & W.
483
                              Asia Minor, Syria, Laodicea or Latakia, Hierapolis, Tripoli
494
                                      and Agathicum III M.
499
            August
                              China (Kiangsu), Chiangning Fu
Italy, Rome II B.
                                                                               H
508
                               Hungary (Dardania or Darda?)
518
                                                                                III M.
                               Asia Minor, Antioch III M.
England (Somersetshire) I M. & W.
528
            Nov. 29
534
543
            Sept. 6
                               Throughout the then known world III
                               Italy, Rome II B.
553
 553 or 555 Aug. 15
                               Turkey, Constantinople
                                                                   III M.
 558
            Dec. 25
                               Italy, Ancona and Numana now Umana
                                                                                             III
 573
                               China (Kansu), Liangchou Fu III
                                                                                     н.
                              China (Ransu), Liangchou Fu III H.
France, Bordeaux and Pyrenees I M.
Japan (Yamato) I Mi.
Italy (Tuscany) II B.
All China (Shansi), Hsian Fu; (Kansu), Chin, Kung-
chang Fu; (Shantung), Chining Fu, Wuting Fu,
Laichou; (Hunan), Changsha Fu; (Chehkiang),
Huchou Fu III H. & Ho.
China (Hupeh), Tsunchou now Chungyang in Wuchang
Fu; (Ssuchuan), Ningyuan Fu II H.
Italy (Tuscany) I B. Perhaps same as 600.
 579 or 580
 599
            May 28
 600
 600
            Dec. 13
 624
            Aug. 15
 624
 638
            Feb. 15
              or 16
                               China (Ssuchuan), Sung and Tsung, Lungan Fu II H. China (Kansu), Ling I H. China (Shansi), Hotung, comprising Puchou Fu, Pingting,
            Oct. 17
Sept. 12
 646
 649
                               Chiang, Ho, Chieh III H.
Asia Minor, Palestine and Syria
Italy, Sicily III B.
 658
            June
 659
                              Italy, Pistoia (Tuscany) I B.
Japan (Yamato) I Mi.
Scotland, Glasgow I M. & W.
Japan (Yamato) I Mi.
Japan, Kiushu III O.
 672
 675
            Dec. 2
 677
 677
            July 22
 678
            Jan.
                               Japan (Yamato)
 678
            July 19
                                                        I
                                                              Mi.
 678
                               Italy, Arezzo and other cities (Tuscany) II
                                                                                                   В.
 682
            Sept. 19
                               Japan (Yamato) I Mi.
Japan (Izu, Tosa) II M
            Nov. 16
 684
 686
                               China (Kansu), Kanchou Fu II
            Sept.
                               Japan (Tanba) I
 701
                      B
            May
                                                           Mi.
 705
            July
                      2
                               China (Kiangsu), Yangchou Fu, Changchou Fu, Suchou Fu II H.
 706
            Sept.
                               China (Ssuchuan), Chentu Fu and six near districts II
                                       À,
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A.D.
                         China (Shansi), Pingyang Fu, Fenchou Fu, Chiang III
         Feb. 14
712
713 ?
         Feb. 28
         or July 9
                         Asia Minor, Antioch
                                                    III
                         Japan (Totomi, Mikawa) I Mi.
Asia Minor and Turkey, Isnik-Membeji in Armenia, Con-
stantinople III M. & O.
715
         June 30
715
                         China (Shensi), Lantien, Hsian II H.
China (Kansu), Chinchou now Kungchang
Japan, Nanto, Kinai and seven provinces
Japan (Osumi) II O.
729
          June
734
          Mar. 10
                                                                               III
                                                                              \mathbf{II}
                                                                                  Mi.
734
          May
                14
         Nov. 28
737
                         Palestine? III Ol.
738
          Jan. 16
                                             В.
                         Italy, Rome
739
                                         1
                         Turkey (Thrace), Constantinople and Asia Minor. some places the sea retired III M.
Egypt and the desert of Saba in Arabia II M.
740
         Oct. 26
                                                                                             In
742
                         Japan (Higo) III Mi.
744
          June 19
                         Italy, Venice and surrounding Islands II
745 (ca)
745
          June
                 -5
                         Japan (Mino) III
                                                  Mi.
          June 22
                         Japan (Settsu)
745
                                            I Mi.
                         Syria and Palestine III
          Jan. 18
                                                         M.
746
         Nov. 27
                         China (Kansu), Hohsi, north-west of Ninghsia Fu, Chang-
756
                               yeh in Kanchou and Chiuchuan now Suchou H.
                                                                                            III
758
                         Italy
                                 III
                         Japan (Hida, Mino, Shinano) II M
Japan (Osumi), Niijima formed III
762
         May 30
         July 20
766
                         Russia, Mozan and Daralagoz, 39°45N. 45°20E. (Siyunik)
775
                               ΪΠ
                                     M. & O.
                         China (Chihli), Tzulu in Paoting Fu, Chaochou and Ning-
777
                                       III
                               chin
                                             н.
                         Italy, Treviso and other parts (Venetia) III Italy, Rome I B.
778
780
                         The whole of China.
                                                    The most damage was done at Kin
788
         Feb. 13
                               in (Hunan), Fang in Yunyang Fu (Hupeh) and
The Imperial City Hsian in (Shensi) was destroyed
        to June 28
                                Ш
                                      H.
                         Italy, Verona and neighbourhood II
793
          April 30
                         China (Shensi), Imperial City Hsian, Kuannei and neigh-
793
          May 27
                                bouring districts; (Shansi), Hochung Fu or Puchou Fu III H.
                         Egypt, Alexandria II M.
China (Shensi), Imperial City Hsian I
794
                                                                           H.
794
          May 14
797
                         Italy, Sicily, also in Crete II
                         Japan, Kioto
797
                                               Mi.
         Sept.
          April 30-
                         Italy III B.
801
                         Russia, Khogot Mountains, Khoja near Tabriz? & O.
803
                                                                                       II M.
807
                         Japan, Kioto I Mi.
          June 14
                         Scotland, St. Andrews, destroyed town and 1,400 people
811
                                III
                                     R.
                         China (Shensi), Imperial City Hsian I H.
China (Yunnan), Suichou in Lichiang Fu III H.
Italy, Ravenna and throughout Italy III B.
Japan (Sagami, Musashi, Hitachi, Kotsuke, Shimotsuke)
812
          Sept.
814
          April 1
815
818
          Aug. 10
                                Ш
                                      Mi.
                         Germany, Aix-la-Chapelle II
Japan, Kioto II Mi.
Japan, Kioto I Mi.
823
       End of year
Aug. 7
                                                                M.
827
        Aug. 7
Dec. 2 or 3
828
829
                         Japan, Kioto
                                           T
                                               Mi.
          April
                 -7
                         Japan (Uzen, Ugo), Akita. Duration 25 days
Japan, Kioto I Mi.
          Jan. 30
                                                                                         Mi.
830
                                                                                    Ш
                                           Ĭ
833
          Mar. 16
                         Japan, Kioto I Mi.
Japan (Shinano, Izu), 94 shocks II Mi.
          April 11
835
836
          June
841
        Mar. 5 or 7
841
          July 30
                         Japan (Izu) II
                                               0.
                         England, York I
844
                                                 M. & W.
847
                         Italy, Benevento (Campania), Isernia (Molise), Rome and
          June
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Ancona II

В.

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A.D.
                               China (Chihli), Shangtu, also called Luanching; also (Shansi), Chenwu or Kueihuacheng in Soping Fu; (Shensi), Hosi, E. of Chaoyi, Tiente, Lingwu in Hsienyang III H.
            Oct. 20
849
                               Italy, Boiano (Molise) II B
Japan, Kiete (Y
850
            Nov. 12
853
                                                                          В.
                               Japan, Kioto (Yamashiro, Yamato, Kawachi, Izumi, Settsu) II Mi.
Switzerland, Bale I M.
856
            Mar. 13
856
            Dec. 13
                               Greece, Corinth; 45,000 lives lost III Ol.
Persia, Khorasan, Alamana III Ol. Mallet gives Ham-
856
            Dec.
            Dec.
856
                      3
        to 875, Jan. 1
                                        adan also Syria.
                               Japan, Kioto I O.
Asia Minor, Antioch, 1,500 houses fell; Laodicea or
Latakia, also Bagdad, Damascus and Tarsus III
859
            Dec. 1
859
                                                                                                      Laodicea or
                                        M. & Ol.
                               Caucasia, neighbourhood of Erivan II M.
Japan (Etchu, Echigo) II Mi.
Japan, Kioto; (Suruga, Kai) I Mi.
China (Shansi), Chin, Chiang in Hotung, now Taiyuan Fu
863
            June 29
863
            Nov. 14
864
865
            Dec.
                                       ΙÌ
                                              H.
                               China (Shansi), Hochung, Puchou Fu, Chin and Chiang,
Taiyuan Fu III H.
Japan (Higo) I O.
867
            Mar.
                               Japan (Higo) I
867
            June 21
                               Japan (Harima, Tanba, Settsu); Kioto
Japan, Oshu; (Rikuzen) II Mi.
            July 30
                                                                                                 H
868
869
            July
                               Japan, Kioto I Mi.
Japan, Kioto I Mi.
Japan, Kioto I Mi.
Japan, Kioto I Mi.
Japan, Kioto ; (Satsuma) I Mi.
China (Chihli), Paoting Fu III H.
Lapan, Kioto I Mi.
                                                                    III M. & O.
869
873
                    14
            May
873
            Oct.
                     10
875
            Feb.
                      8
            July 14
876
            April 27
                               Japan, Kioto I
877
                                                             Mi.
            Nov.
                               Japan, Kioto
                      2
                                                            Mi.
877
                                                      1
                               Japan (Sagami, Musashi, Awa, Kazusa, Shimosa, Hitachi,
878
            Oct. 28
                               Kotsuke, Shimotsuke) III Mi.
China (Shensi), Imperial City Hsian also at Lantien I H.
879
            March
                               Japan, Kioto; (Izumo)
880
            May 14
                                                                     11
881
            Jan. 13
                               Japan, Kioto I M.
Japan, Kioto I Mi.
Japan, Kioto II Mi.
Japan (Settsu, Shinano, Omi, Mino); Kioto
Italy, Milan II B.
                               Japan, Kioto I
                                                             0.
            Jan. 28
881
            July 20
July 24
Aug. 22
886
887
887
                                                                                                       III
                                                                                                               Mi.
890
893 ?
                                Armenia, Dabil, Yamamahe and Yaman in Arabia
                                                                                                                     III
                                        01.
893
                                Russia, Dvin or Tovin
Italy, Verona II B.
                                                                      III M. & O.
894
                                                            III
894
                                Caucasia, Erivan
                                                                     M. & O.
896
                                Italy, Rome I
                                                         В.
             Aug. 22
                               Japan, Kioto I O.
China (Honan), Honan Fu; (Shantung), Tungchang;
(Kiangsu), Hsuchou Fu; (Anhui), Fengyang Fu
898
925
            Nov.
                                        III H.
                               China (Shansi), Taiyuan Fu II H.
China (Kansu), Kungchang Fu III H.
Japan, Kioto II Mi.
Japan, Kioto I O.
Japan (Yamashiro), Kioto; (Yamato) II Mi.
China (Chihli), Yuting, now Yungping Fu, Tsuang in
Tientsin Fu, Shen in Chingho and Pei in Kuangping
932
             Julv
932
            Sept.
             July 11
934
             May
                    25
935
                     17
938
            May
949
            May
                                        Fu
                                               \Pi
                                                      н.
                               Per multa Germaniæ et Galliæ loca II M.
China (Honan), Wei or Changte Fu, Lo now Honan Fu;
and (Chihli), Hsing, now Shunte Fu II H.
950, 951, or 952
953
             Nov.
                                and (Ominion I III B. Wioto I Mi.
             July 22
963
             Oct. 18
Dec. 10
965
968
                                Italy, Rossano (Cosenza) and other places in (Calabria) II B.
                                Japan, Kioto I Mi.
Japan, Kioto II Mi.
972
             Mar. 31
973
             Oct. 25
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1068

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A.D.
                                                 I
 973
                            Italy, Ancona
                                                      в.
           May 12
July 17
Feb. 27
                            Japan, Kioto
                                                 ΤĪ
                                                     Mi.
 976
                                                 III
.976
                            Japan, Kioto
                                                       Mi.
                            Japan, Kioto
                                                     Mi.
 977
                                                 Ι
 981
                            Italy, Benevento, Capua. II B. that of 990
                                                                            Perhaps the same as
                            Japan, Kioto III Mi.
Greece and Turkey (Thrace), Constantinople
 984
           Dec.
                    3
 989
                                    M. & O.
 990
                            Italy, Benevento, Ariano, Frigento and Conza (Campania);
                                    Ronza (Basilicata)
                                                              II
                                                                   В.
                            Italy, Borgo S. Sepolcro (Arezzo) II B. Asia Minor, Damascus; 1,000 houses fell
 991
 991
        Apl. 5-May 1
                                                                                     III
 994
            Nov. 29
                            Japan, Kioto I Mi.
                            Japan, Rioto I Mi.
Armenia, Chapajar, 38°48N. 40°30E., Alhakh and Amit, same as Ami? III M. & O.
Japan, Kioto I Mi.
China (Ssuchuan), Tung now Tzutung in Mien; Kuansi
 995
 996
           July 17
 996
           Oct.
                                   forming (Shensi); Hsia forming (Lower Shansi); (Kansu), Ling in Ninghsia Fu, Huan and Ching in
                            Chingyang Fu III H.
Japan, Kioto I O.
China (Kiangsu), Changchou Fu, Wuchin and Yanghu II
 996
            Nov. 10
 999
           Oct.
1000
           Mar. 29
                            Throughout the known world III M. & O.
                                                             H
                                                                 M. & W. Same as above?
                            England (Cumberland)
1000
                            Italy, Verona II B.
China (Honan), The Imperial City Kaifeng I
Italy, Padua I B.
1001
1004
           Feb. 15
1004
                            Italy, Padua I D.
Italy (Campania), Monte Cassino I B.
Italy, Arezzo and throughout (Tuscany)
1004 or 1005
1005
1007
1010 Jan. 6 to Mar. 9 Turkey, Constantinople I M.
1011 August China (Chihli), Chenching, now called Chengting I
1013 Iceland, Southland II Th.
                                                             Î M.
                                                                                                  H.
                                                             Ι
1014
                            England (Cumberland)
                                                                M. & W.
                            Scotland I M. & W.
China (Shansi), Liao, Ying in Tatung Fu and Yuan in
Chiang II H. Hoang gives April-May.
1019
1022
           March
                                                     Mi.
1027
                            Japan, Kioto
                                               Ι
           April 11
                            Palestine, Jerusalem II M.
China (Shansi), Taichou, 759 lives lost, Pingchou, now
Taiyuan, 1,890 lives lost and Hsinchou, 19,742 lives
lost III H. Biot gives January 24, 1038.

Turkey. Constantinople II M.
                                                          M.
1029
1035
1037
            Dec.
                            Turkey, Constantinople
Japan, Kioto I Mi.
1037
            Dec. 18
1040
            Oct. 16
                            Japan, Kioto I Mi.
Persia, Tabriz, also Smyrna and in Africa
Japan (Owari, Totomi); Kioto I Mi.
            Dec. 13
1040
1040
                   2
            Feb.
                                                                                       III
                                                                                              M.
         Aug. 7 or 27
1041
                                                                                       Omori gives
                                   August 25.
                            China (Shansi), Hsinchou II H.
Asia Minor, Erzingan, Ami, 39°34N. 39°E. and Ekeghiaz
III M. & O.
1043
           June 18
1045
1045
           Sept. 3
                            China (Kuangtung), Canton; (Hunan), Kingnan, Yochou
                            I H. & Ho.
China (Shantung), Tengchou Fu I
1046
            April 18
1052
                            Persia (Chusestan): Ardistan and Irak? (Khorasan)
                                    Ι
                                        M.
1057 March to April China (Chihli), Yuchou, Hsiungchou in Paoting Fu and Pachou in Shuntien Fu III H.
                            Mesopotamia, Mosul II M.
1058
1063
                            Syria, especially at Tripoli I
                                                                     Μ.
                            Italy, Brescia, Milan and throughout (Lombardy)
1064
            April 11
                                                                                                TT
                                                                                                       В.
                            Japan, Kioto I Mi.
1065
            June 13
         Oct. to Nov.
1067
                            China (Fukien),
                                                     Chuanchou,
                                                                        Changchou,
                                                                                          Chienchou,
                                    Shaowu, Hsinghuachun; (Knangtung), Chaochou Fu
                                    III H.
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China (Hunan), Yiyang in Chansha Fu I H,

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China (Shantung), Hui and Tunga in Yunchou now called Tungping in Taian Fu; (Chihli), Tsangchou, Chingchih and Mochou, in Hochien Fu; and Hopei in (Honan), comprising Changte Fu, Weihui Fu and Huaiching Fu III H.

China (Ssuchuan), Yingchou II H.

China (Chihli), Tsang in Tiensin Fu I H.

Syria, especially at Ramleh and Egypt II M.

Japan, Kioto, Nara II Mi.

Turkey, Constantinople II M.

Italy, Sicily, Catania III B.

Japan, Kioto III Mi.
 A.D.
1068
1068
               Dec. 31
Jan. 18
1069
1069
               Nov. 25
1070
1082 or 1083 Dec. 6
1083
               Oct. 18
Sept. 22
                                    Japan, Kioto III Mi.
1091
               Nov. 2
                                    France, Angers I
1091
                                                                      M.
1091
                                    Asia Minor, Edessa and Antioch III M. & O.
1092
                                   Asia Minor, Antioch and Damascus I above?
                                                                                                           M. Same as
                                   China (Kansu), Lanchou, Cheniung; (Shensi), Hsian Fu
1092
               Nov.
                         1
                                   II H.
Japan, Kioto I Mi.
Japan, Kioto II Mi.
Italy, Venice I M. & B.
Italy, Benevento I B.
Italy, Venice and Verona I B.
Itany, Kioto II Mi.
1092
               Dec. 11
1093
               Mar. 11
1093
                         3
               Oct.
1095
           Jan. 14 & 18
              Sept. 10
Dec. 11
Aug. 21
1095
1096
                                   Japan, Kioto
Japan, Kioto
                                                            II
                                                                   Mi.
1097
                                                           II Mi.
1099
               Feb. 16
                                    Japan, Kioto
                                   China (Shansi), Chin, Hsi, Tai, Lan, Kelan, Paote,
Ningwu, in Taiyuan Fu; (Shensi), Shih, now
Wupao and Weisheng. Suite Fu, N. and S. valley
of the Yellow River III H.
               Jan. 15
1102
                                   Japan, Kioto I Mi.
Italy, Liguria I B.
Italy, Venice II B.
11v3
               June
                          7
1104
               April
1106
                                   England (Lincolnshire) I M. & W. England, Shrewsbury I R. Armenia (Van) II M. & O. Japan, Kioto I Mi.
1107 or 1114
1110
1111
               May
1111
1114
               Mar. 12
                                   Asia Minor, Samosata, 37°30N., 38°32E.; Ghisn-Mansur, 37°45N.38°20E.; Khesun, 37°35N.37°51E.; Marash,
                                            37°36N. 36°52E.; Kaben, 37°49N. 36°25E.;
Sis, 37°26N. 35°50E. III M. & O.
1114
                                   Asia Minor, Antioch and the country round
                                   Italy, Viterbo in (Latium) II B.
Sumatra and Java I M.
Italy (Lombardy, Venetia), Montecassino (Caserta)
1114
1115
1117
               Jan. 3
                                                                                                                               III
                                             B.
1120
                                   Austria-Hungary "In valle Tridentina"
1120
                                   England, Vale of Trent II
Arabia I M.
               Sept.
1122
1122
                                   China (Chihli), Hsiungchou in Paoting Fu II H.
                                   China (Honan), Kaifeng Fu
Japan, Kioto I O.
Persia (Khorasan) III M.
1124
               Feb.
                                                                                   1
1124
                                   cersia (Khorasan) III M. & O.
China, in the Hsiho Circuit North of Kansu; (Kansu),

Lunchou III H.

Italy, Benerous (Target)
               Mar. 25
1124
1125
               Aug. 30
1125
               Oct. 11
                                   Italy, Benevento (Frentana and Sannium)
1127
                                   Syria, Tyre II M.
                                   China (Shensi), Hsian Fu II H.
Armenia, Ani II M. & O.
England I M. & W.
1128
               Feb. 15
1131
1133
               Aug.
1133
              Sept. 2
                                   China (Hunan), Pingchiang in Yochou Fu; (Chehkiang),
                                            Huchou II H. Biot gives Oct. 12
                                   Armenia, Dogodoph? II M.
Japan, Kioto I Mi.
China (Chehkiang), Hangehou II H.
Japan, Kioto, I Mi.
Mesopotamia, Hira, Gansana? Aleppo and Ambar or
Amla? III M.
1134
1135
              May
                          2
1136
                          9
               July
1137
                         3
               Aug.
1139
1139
                                   Caucasia (Elizabetpol), Ganja, 40°40N, 46°20E., Kapassi
Dagh, 40°22N, 46°20E, III M. & O.
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A.D.
                          Italy, Syracuse and felt throughout Sicily Tibet, Tangut country II M. & O.
                                                                                H B.
1140
           Feb.
                   1
1143
                          Japan, Kioto I
Japan, Kioto I
1143
           Nov. 25
                                                0.
                                                 Ó.
1144
           Jan.
                          Japan, Kioto I O.
Italy, Florence II B.
           June 22
1144
1148
                          Iceland, Southwestland, eruption of Trolladyngjur, houses
1151
                                                            Th.
                                fell and lives lost II
1154
           Feb. 15
                          France (Burgundy), Cluniacum or Cluny?
                                                                                II M.
           Oct. 17
                          Japan, Kioto I O.
1154
                          Asia Minor, Antioch, Damascus and Tripoli, 2,000 persons killed III M.
1155 during winter
                          Japan, Kioto I Mi.
Syria, between Aleppo and Malatieh
Mallet, 1155.
1155
           Sept. 3
Oct. 26
                                                                          III M. & O.
                                                                                             See
1156
       for 14 months
1157
           Jan. 19
                          Iceland, Southland, Hecla, eruption of
                                                                                 Th.
                          Italy, Benevento and elsewhere II B.

Asia Mincr, Syria, Malatia, Antioch, Tripoli, Damascus,
Aleppo, 20,000 perished III M.
Iceland, Southland, Grimsnes, 19 lives lost II Th.
1158
1158
1164
                          Japan, Kioto
                                            I Mi.
1164
           Mar. 19,
                          England (Norfolk, Suffolk and Cambridge) I
Japan, Kioto I O.
1165
           Jan. 26
                                                                                      R.
           July \tilde{20}
1165
1168
                          Asia Minor, Erzingan
                                                      III M. & O.
                          China (Ssuchuan), Shihchuan, Suiting Fu II
1169
           Jan. 24
                          Italy, Catania, Syracuse, throughout Sicily and (Calabria)
III B.
1169
           Feb.
                          Italy (Latium), Ceccano I B.
Syria, Hungary, Germany, Switzerland, Sicily and the
1170
           May
                   G
1170
           June 29
                          Russia, Kief III M. & O. Japan, Kioto, Nara I Mi.
1170
1177
           Nov. 19
                          England, Nottingham
                                                       II
1180
           April 25
           Dec. 22
                          Japan (Kii) II O.
1180
                          Asia Minor, Syria and Judaea II M.
Iceland, Southland, 11 lives lost II Th.
Italy, Verona and many towns in (Lombardy)
1182
1182
1183
           Aug. 15
1183
                          Syria, Antioch, Damascus, Tripoli; more than 20,000 vic-
                                              M.
                                tims
                                        III
                          Japan, Kioto I Mi.
Japan, Kioto I Mi.
Italy, Cosenza, the valley of the Crati and in Reggio in
1183
           Oct. 31
1184
           Feb.
           May 24
1184
                                 (Calabria) II B.
                          Japan, Kioto, Kamakura
           July 18
Aug. 13
1185
                                                           II Mi.
1185
                                             II O.
                          Japan, Kioto
                          England, Lincoln I M. & W. Japan, Kioto III O.
1185
1186
           Oct.
                   3
1186
          Middle of
            Sept.
                          Almost universal in Europe; especially in England III
                                 M.
1186
                          England
                                      I M. & W. Same as above?
                          Japan, Kioto
Japan, Kioto
           Nov. 13
1187
                                                 Mi.
1187
           Nov. 20
                                             I
                                                 Mi.
1191
           April 8
                          Japan, Kamakura
                                                  T
                                                       0.
                          Italy, Arezzo and elsewhere in (Tuscany)
1192
1195
           April 3
                          China (Honan), Kaifeng II H.
                          [1198 according to Likosten and Frigius]. Poland (the
Erzgebirge) and the greater part of Germany II
1196
         May 3 or 4
                                 M. & O.
1196
           Autumn
                           Italy, Pistoia in (Tuscany) I B.
Bohemia, village of Longaw II M.
1198
           May 2
 1198
                                                             II B.
                           Italy, Pozzuoli in (Naples)
            June 18
1199
                           Japan, Kamakura
                                                  I
                                                       0.
 1201
           May
                           Austria, Vienna, Bohemia
                                                             III
                                                                  Ra.
1201 or 1202
                           Asia Minor, Syria, Palestine, Mesopotamia and Cyprus
                                 M.
                          Japan, Kamakura I O.
Japan, Kamakura I O.
Egypt, Asia Minor, Syria, Mesopotamia, Irak, Cyprus
and Sicily I M.
 1202
           Feb. 29
           Nov.
 1204
1204
```

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A.D.
1205
                                                   0.
            Jan. 25
                            Japan, Kioto
                                              1
1205
                            Italy, Sicily II
                                                   В.
1207
            May 14
                           Japan, Kioto I O.
1208
            Jan. 31
                            Japan, Kamakura I
                                                         0.
                           China (Shansi), Fushan in Pingyang Fu; about 3,000 lives lost III H.
1209
            Dec.
1210
            Mar. 24
                           China (Chihli), Shuntien Fu II H. & Ho.
1211
            Feb. 19
                           Japan, Kamakura I O.
1211
            July
                           Iceland, Southland; eruption in sea south of Reykjanes
                                       Th.
                                   II
                           Japan, Kamakura I
Italy, Venice II B.
1211
            Aug. 19
                                                         0.
1212
1213
            June 11
                           Japan, Kamakura
                                                         Mi.
                                                    T
                           Japan, Kioto I O.
1213
            Oct.
                   Ω
            Mar. 26
                           Japan, Kamakura I
1214
                                                         o.
            May 20
1214
                           Japan, Kamakura, Kioto
                                                                 ο.
                           Japan, Kamakura I O.
Japan, Kamakura II Mi.
Italy, Subiaco in (Latium) II B.
Armenia, Muskavank I M. & O.
1214
            Nov.
            Sept. 30
1215
1216
1219
            Jan. 11
1219
            June 2
                           China (Kansu), Pingliang and Chenjung in Pingliang Fu
                                  IÌI H.
                           China (Chehkiang), Hangchou Fu I H.
Italy, Brescia, Milan, Bologna, Modena, Parma
throughout N. Italy III B.
1221
            Feb.
            Dec. 25
1222
                                                                                                and
                           Italy, Siponto near the present Manfredonia and in other
1223
                                  parts of (Foggia) III B.
                           Italy, Brescia, Cremona II
Japan, Kioto I Mi.
Japan, Kamakura I O.
Japan, Kamakura I O.
1223
            April 21
1224
           May 27
Nov. 19
1225
1226
           May 31
           Sept. 1
Oct. 21
1226
                           Japan, Kamakura
                                                    T
                                                         o.
1227
                           Japan, Kamakura I
                                                         o.
                           Japan, Kamakura II O.
Italy, Maritime Alps III
1227
            Dec. 22
1227
        Early in year
                                                               В.
                           France, Rhone District (Bouches du Rhone), Aix III Italy, Ischia I B. Italy, Bologna and the Campagna II B. Russia, Kief, Pereiaslavl, Novgorod and environs Rostof, Susdal and Valdimir I M. & O.
1227
         In winter
1228
           July
1229
1230
           May
                    3
                                                                                     environs of
1231
           June
                   1
                           Italy, S. Germano, Montecassino in (Latium), felt at Capua
                                  and in (Molise) III
                           Japan, Kioto I Mi.
Japan, Kioto, Kamakura II Mi.
1234
           Oct. 10
           May
1235
                   1
1235
           Oct. 21
                           Japan, Kioto I O.
1237
           June 24
                           Japan, Kioto I Mi.
Japan, Kamakura I
1239
           Dec. 15
                                                        Ο.
1240
                           Iceland, Southland;
                                                       eruption outside Reykjanes
                                                                                                  \Pi
                           Japan, Kioto and Kamakura
1241
           Mar. 20
           May 22
1241
                           Japan, Kamakura II
                                                         0.
                           Japan, Kamakura I
Japan, Kioto II Mi.
Japan, Kamakura I
           June 18
1243
                                                         0.
1245
           Aug. 19
Jan. 16
1246
                           Island of Candia, Canea II
England (Kent) I M. & W.
Italy (Perugia), Spoleto II
1246
                                                                 M.
1246
1246
                           Japan, Kioto, Kamakura I Mi.
Japan, Kioto I O.
Japan, Kamakura I O.
England, London II R.
1247
           Jan. 13
1247
           Nov. 13,
Dec. 31
1247
1247
           Feb. 13
1248
                           Italy, Valley of Moriana in (Savoy) III B. West of England, Bath and Wells I M. & W.
           Dec. 21
July 25
Aug. 24
1248
1249
                           Italy, Milan, Verona
                                                       I B.
1250
                           Japan, Kamakura II
Japan, Kamakura I
           April 1
1253
                                                         0.
1253
           July 14
                           Japan, Kamakura I
                                                         o.
1255
           Jan.
                   -5
                           Japan, Kamakura
                                                   1
                                                         o.
1255 Beginning of
                           Asia Minor, Arzengan or Erzingan in Siwas, district of
                                  Divrigi III M.
            year
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A.D.
                                 Japan, Kamakura; (Tsushima) II Mi.
 1257
               Aug. 28
                                 Japan, Kamakura
Japan, Kamakura
Japan, Kamakura
 1257
              Sept. 17
                                                                     0.
 1257
               Oct.
                        1
                                                               H
                                                                      Mi.
               Dec. 22
                                                                     O.
 1257
                                 Iceland, Northland, Island of Flatey.
 1260
                                                                                            \mathbf{II}
                                                                                                  Th.
                                 Japan, Kioto I O.
 1264
              Nov.
                                 Japan, Kamakura I
Japan, Kioto I Mi.
               April 3
 1265
                                                                     O.
               June 15
 1268
                                 Italy, Ancona
 1268 or 1269
                                                        II
 1268 or 1269
              Nov. 3-4
                                 Italy, Treviso, Feltre and Padua in (Venetia)
                                 Asia Minor, in Cilicia, 60,000 killed
1268
                                                                                        III
                                                                                               Μ.
 1268
                                 Asia Minor, Erzingan III
                                                                          M. & O. See above.
                                 Italy (Tuscany) I B.
Italy (Basilicata) III
 1272
 1273
 1273
              April 5
                                 Japan, Aizu
                                                     II
                                                             O.
 1275
              Sept. 11
                                 England, Glastonbury I
                                                                          R.
 1276
          July 28 or 29
                                 Italy, Lodi and environs, Milan, Bologna, Genoa II
                                 Roumania, Arcastia or Arcesci in the province of (Argesch), also at Cilath or Slatina? II M.
 1276
                                 Italy, S. Sepolcro in (Arezzo) II B. Italy, Spoleto in (Perugia) II B.
 1277
                                 Italy, Spoleto in (Perugia) II B.

Austria, Constance I Ra.

Italy, Friuli in Udine and Venice II B.

Italy, Friuli, Cividale in Udine and Venice II B.

Italy, Forli in (Emilia), Spoleto, Romagna and (The Marches) III B.
 1277
              May 27
April 7
1277
1278
              April 24
 1279
1279
              April 30
                                 Italy, Sicily I B.
Italy, Venice and Milan I
Caucasia, Mtzkhet II M.
Italy, Cremona, Milan, Lodi
1281
1282
              Jan. 17
                                                                            В.
1283
             At Easter
1287
              April 11
                                 Asia Minor, Erzingan II M. & O.
1287
              May
1289
                                 Italy, Pistoia in (Tuscany) I B.
                                 China (Chihli), Shangtu, also called Luanking; and (Fukien), Wuping, in Tingchou Fu, 100,000 lives lost III H.
1290
              Sept. 27
                                China (Shansi), Pingyang Fu III H.
Italy, Valley of Vivano or Bivona, Sicily and throughout
the country II B.
1291
              Sept.
1292
                                Italy, S. Sepolero in (Arezzo) II
Japan, Kamakura III Mi.
Italy, Pistoia in (Tuscany) II I
Italy, Boiano in (Campobasso) I
Italy, Siena I B.
1292
                                                                                      В.
              May 20
July 11
1293
1293
                                                                                  B.
1294
                                                                                       В.
                                                                                II
1294
                                Iceland, Southland, Fliotshlid and Rangarvellir, cruption of Hecla III Th.
1294
                                Austria, Vienna, Constance, Chur III Ra.
France, Tours, also Austria, Rhetic Alps II
Italy, Capua I B.
1295
              Aug.
                       8
1295
              Sept. 3-17
1297
                                Italy, Pistoia and Arezzo II B.
Italy, Ancona and Umana II B.
Italy, Rieti, Spoleto and throughout (Umbria)
Italy, Verona and environs II B.
Italy, Larino, in (Campobasso) I B.
Iceland, Southland
1298
1298
1298
              Nov. 30
                                                                                                         \Pi
                                                                                                                В.
1298
1300
1300
             Dec.
                                Iceland, Southland, earthquake with eruption of Hecla
                                              Th.
                                Central Asia, Karakorum III M.
Italy, Cuneo in (Piedmont) II B.
Italy, Palermo and throughout Sicily
End of 13th century
1301
1301
1302
          Jan. or Feb.
                                Italy, Ischia II B.
1302
             June
                                                            Mi.
                                Japan, Kioto
                                                      1
                                Alexandria and Acre, Peloponnesus, Candia and all the Adriatic Sea II M.
1303
             Aug.
1303
             Sept. 17
                                China (Shansi), Pingyang Fu, Taiyuan Fu, 100,000 houses
                                destroyed and many people killed III II.
Italy, Vicenza, Ferrara, Parma, Piacenza, Venice
1304
             Oct. 23
                                                                                                             \Pi
                                                                                                                    R.
                                China (Shansi), Pingyang Fu II H.
Japan, Kioto I Mi.
China (Shansi), Tatung Fu, 5,800 houses were destroyed and 1,400 people killed III H.
1304
             Feb.
1305
              April 3
1305
             May
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A.D.
                           Italy, Boiano in (Campobasso)
Italy, Boiano in (Campobasso)
1305
                                                                      II
1307 or 1309
                                                                      \Pi
                                                                            B.
                            Italy, Rimini II B.
1308
           Jan. 25
                            Iceland, Southland, 18 farms fell, six lives lost II Th.
1308
1308
                            Caucasia, Karabagh II M. & O.
China (Kansu), Ningyuan ; (Yunan), Chaotung Fu
1308
           June 28
1310
                            Italy, Reggio in (Calabria) and throughout Sicily I I
Iceland, Southland, eruption of Katla in Austurjokulls
        Jan. 10 & 11
1311
                                   Th.
1314
           Sept. 14
                            China (Shansi, Honan) III H.
                           Italy, Aquila in (Abruzzi) and around II B. China (N. Shansi) I H. China, Lingpei II H. Japan, Kioto II Mi. England I R.
1315
           Dec. 3
1316
            August
1317
            October
1317
            Feb. 21
1318
            Nov. 14
                           Asia Minor, Armenia, in the provinces of (Ararat and Sini)

Ani III M., M. & O.

Italy, Siena I B.

Italy, Pisa I B.

Italy, Pisa I B.
1319
1320
        Oct. to Dec.
1321
1322
1323
           Feb. 25
                            Italy, Bologna II B.
                           Japan, Kioto and neighbouring provinces II O.
China (Kansu), Tungwei in Kungchang Fu; (Shensi),
Fenghsiang Fu and Hsingyuun, Hanchung Fu;
(Ssuchuan), Chentu; (Hupeh), Shenchou and Chiangling in Chingchou II H.
Italy, Norcia, Le Preci, Montesanto and other places in
(Umbria) III B.
1325
           Dec.
                    5
1327
           August
1328
           Dec. 1
                            China (Chihli), Chenting Fu; (Honan), Huaiching Fu
1331
           May
                                   H.
                            Japan, Kii II Mi.
Japan (Suruga) II
1331
            July 28
                                                        Mi.
1331
            Aug. 19
                            China, Imperial City Pekin.
1334
            Sept. 14
                                                                     A cock crowed before the
                                   earthquake commenced
                                                                     III H.
                                                    Mi.
1334
           Sept. 25
                            Japan, Kioto I
Italy, Verona II
1334
            Dec. 4-5
                                                II
                                                     В.
                                               I Mi.
            Jan.
1335
                   -8
                            Japan, Kioto
1336
           Jan. 12
                            China (Anhui), Anching, Susung, Taihu, Hsunshan, also
                                   at Luchou; (Hupeh), Chichou, Huangchou Fu
                                   H.
                            China (Chihli), Imperial City Pekin, Shunchou, near
Shunyi, Lungching, Huailai, Hsuante, now Hsuan-
1337
           Sep.
                                          III H.
                                   hua
                            China (Chihli), Hsinchou, Shuntien Fu; Mount Ling was
1338
           July
                                   displaced II H.
1338
                            China (Chihli), Hsuanhua Fu II H.
            Aug.
                            Japan, Kioto' I Mi.
China (Kansu), a mountain was displaced at Kungchang
1338
            Aug.
1338
           August
                                   IÌ H.
1339
           May 22
                            Iceland, Arnessysla, Rangarvallasysla, Skeid, Floi, Holt;
                            a great many farms fell III Th.
Japan, Kioto I O.
Japan, Kioto I O.
Japan, Kamakura I O.
1339
            Oct. 15
1340
           Mar.
                    3
            April 2
1341
           May 30
1342
                            China (Shansi), Pingchin in Chining, now Taiyuan
                                   H.
1343
                                           O.D.
           Nov. 24
                            Malta III
                            Southern part of Iceland and the province of (Guldalen) in Norway, on the R. Gule III M. Germany III Ro.
1344
           Middle of
            autumn
1345
            Jan. 28
           Sept. 12 or
Dec. 22 ?
Feb. 22
1345
                            Italy, S. Sepolcro, Arezzo and Florence II
1346
                            Italy and throughout the world, especially in Alexandria
                                  II B.
1346
           March
                            China, all (Shantung) II
                                                              H.
1346
                            China (Shantung), Kaoyuan in Chingchou Fu II
Japan, Kioto I O.
           April
1346
            Aug. 29
1346
        Nov. 24 & 25
                            Switzerland, especially at Bâle II M.
1346
                            Turkey, Constantinople II M. Japan, Kioto I O.
1347
           Mar. 10
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A.D.
                          China (Shantung), Lintzu, Chingchou Fu;
1347
        Mar, to June
                                                                                       (Shansi),
                                 Hotung now called Puchou and Pingyang
                                                                                        III
                          Japan, Kioto I O.
Italy (Venetia); Austria (Styria, Carinthia), Villach, Gorz
III B., M. & O., Ra.
1347
          Aug. 12
Jan. 25
1348
                          Italy,
                                  France, Roccabigliera, Lantosca and Bollena in
1348
                                 (Nice) II
                                                В.
                          Italy, Aquila (Molise), and elsewhere in (Abruzzi) and in Sannium III B.
1349
       Sept. 9 or 10
                                            I
1349
                          Japan, Kioto
                                                0.
           Sept. 10
                          Japan, Kioto
                                             T
                                                 Mi.
1350
           June 28
                          Japan, Kioto
Japan, Kioto
                                             Ι
1350
           Aug. 5
Mar. 15
                                                 Mi.
1351
                                             1
                                                 Mi.
                          China (Shansi), Fen, Hsin, Wenshui, Pingchin, Yutzu and
Shouyang ia Taiyuan Fu, Yushe of Liao in Chinning
1351
           May
                                 now Pingyang Fu; also (Honan), Honei, Hsiuwu,
Mengchou in Huaiching Fu III H.
                                                                     III
                          China (Shensi), this comprised part of (Kansu), the northwest part of (Ssuchuan), and the present (Shensi).

Most damage done at Chuanglang, Tinghsi in Liang-
1352
           April 18
                                 now Huan in Chingyang (Kansu) III H.
Italy, La Rocia d'Elci, Arezzo, S. Sepolero, Citta di Castello
1352
           Dec. 25
                                 in (Umbria) III
                                                       В.
1354
          Beginning
                           Turkey, all the coast of Thrace II M.
          of spring
                           China (Anhui), Ningkou Fu; (Kiangsu), Huaian Fu
1354
           Dec.
1355
           Sept.
                           Switzerland and Germany, Bale and Strasburg II
Portugal, Lisbon II M.
                                                                                            M.
1356
           Aug. 24
1356
           Oct. 18
                           Germany, all the upper Rhine, especially at Strasburg and
                                 Bale, district of Constance, Lausanne, Berne and the
                                  borders of Bavaria II M.
1358
           Oct.
                           Japan, Kioto II
                                                   Mi.
1358
                           Italy, S. Sepolcro in (Umbria) II B.
1361
           July 17
                           Italy, Ascoli, Canosa and S. Agata in (Apulia) III
                                                                                             В.
1361
           July 22
                           Japan, Kioto
                                             II Mi.
1361
           Aug.
                   1
                           Japan (Kii, Settsu, Yamato) and Kioto
                           Japan, Kinai; (Awa) II O.
Japan, Kioto I O.
Italy, Siena II B.
1361
            Aug.
                   3
1361
            Dec.
                  19
            Dec. 27
 1361
                           Japan, Kioto
                                                  Mi.
1362
            June
                    9
 1363
            Mar. 27
                           Japan, Kioto
                                                  Mi.
 1363
                           Armenia, Mush
                                                I M. & O.
                           Italy, Bologna II B.
China (Shansi), Hsin, Lin, Shih in Hsukao of Taiyuan and
Hsiaoyi, Pingyao in Fenchou III II.
 1365
            April 7
 1366
            August .
            Dec. 25
 1366
                           China (Honan), Kung in Honan Fu I
            Feb. 16
Mar. 25
Sept. 21
Sept. 23
 1367
                           Japan, Kioto I
                                                  o.
                           Japan, Kioto
Italy, Verona
Japan, Kioto
 1367
                                              1
                                                  o.
 1367
                                              H
                                                  В.
 1367
                                                  0.
                                              I
            June 16
 1368
                           China (Shansi, Shensi, Kansu) III
                                                                          н.
 1369
                           Italy, Alessandria
            Feb. 1-2
                                                        в.
 1369
            Aug. 29
Nov. 26
                                                  Mi.
                           Japan, Kioto I Mi.
Italy, Monza in (Milan)
 1369
                                                          I
                                                               В.
 1370
                           Iceland, Southland, Olfus; twelve farms fell, six lives
                                              Th.
                                        II
                                  lost
 1371
            April 13
                            Japan, Kioto
                                               1
                                                  0.
 1371
            Oct. 14
                            Japan, Kioto
                                                  0.
                           Japan, Kloto I U.
China (Kuangsi), Wuchou Fu, Pingli Fu II
China (Kiangsu), The Imperial City Nankin
China (N. Shansi), Taiyuan Fu II H.
Spain, district of Ribagorca in (Aragon) I
            May 24
Aug. 16
 1372
                                                                              \Pi
                                                                                     Н.
 1372
                                                                                    \mathbf{II}
                                                                                         н.
 1372
            Sept. 6
 1372
                                                                                   M.
 1373
            \mathbf{May}
                            Japan, Kioto
 1373
             Dec. 14
                            Japan, Kioto
                                             Ι
                                                  0.
 1374
            Dec.
                    8
                            Armenia, Erzingan
                                                     II M. & O.
            May 23
 1375
                            Japan, Aizu II
Italy, Vicenza I
                                                  0.
 1376
             March
 1376
            May 14
                            Japan, Kioto I
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A.D.
1378
            April 30
                             China, Ninghsia in north (Kansu) I H.
1378
            Nov. 27
                             Japan, Kioto I O. Japan, Kioto I O.
1379
            Nov. 26
1380
                             England, Canterbury
                                                           I M. & W.
                             China (Kansu), Lanchou Fu; (Kuangtung), Kuangchou Fu; (Fukien), Fuchou Fu II H.
England generally I M. & W.
1382
            Jan.
1382
            May 21
                             England generally I
Japan, Kioto I O.
1383
            June 3
1383
                             Asia Minor, at Mytilene, 500 persons perished III
            August
1388
            Feb. 5
                             Japan, Aizu II O.
                             Italy, Fano, in the (Marches) I B
Italy, Moggio in Udine and Belluno
            Spring
Aug. 20
1389
                                                                           В.
1389
\bar{1}389
                             Italy, S. Sepolcro, Citta di Castello in (Umbria)
            October
1389
            Oct. 3
                             Japan, Kioto I O.
                             Iceland, Southland, with eruptions of Hecla, Trolladyugjar
1389-90
                                     and Sidu Jokull II
                                                                   Τh.
                             Japan, Kioto I Mi.
Iceland, South Country, Grimsnes, Olfus, Floi; fourteen
farms fell III Th.
1391
            Nov. 11
1391
                            Italy, Galeata in (Tuscany); Bologna I B.
1393
            Summer
1395
            Mar. 24
Dec. 18
                             Japan, Kioto I O.
Spain, Province of (Valencia) and at Tortosa
1395
                                                                                            \mathbf{II}
                                                                                                  м.
                             Italy, Nardo and (Lecce) I B.
Italy, Bergamo and throughout (Lombardy)
1396
            Dec. 26
April 3
1397
                             Italy (Abruzzi), Aquila I B.
Italy, Modena, Bologna, Ferrara
1398
1399
            July 20
1400
                             Japan, Kioto and (Iga, Ise)
Japan, Kioto II Mi.
                                                                    \mathbf{II}
1402
            Feb.
                             Syria; many towns ruined III M.
Italy (Emilia), Forli II B.
Italy, Verona, Belluno and throughout (Lombardy) II
B.
1402
            Dec.
                     5
1402
1403
            Jan.
1403
                     6
                             Italy, Friuli in (Udine) II B.
            Sept.
1404
                             China, Pekin; (Shansi), Taiyuan Fu; (Kansu), Ninghsia
            Jan.
                             Fu I H.

China, Nankin, The Imperial City: (Shantung), Chinan
Fu; (Honan), Kaifeng Fu II H.
1404
            Dec. 17
                             Japan, Kioto I O.
Japan, Kioto, Aizu III Mi.
1405
            Dec. 20
1407
            Feb. 12
            Jan. 21
                             Japan (Settsu), with sea waves II O.
1408
                             Italy, Florence I
Japan, Kioto I
Italy, Parma I
                                                   I B.
1408
            Nov. 26
1408
                             Italy, Catania I B.
Japan, Kioto
1409
            Nov. 15
1410
                             Japan, Kioto I Mi.
Italy, Verona II B.
1410
            Mar. 11
                            Japan, Kioto I O.
Italy, Siena I B. & M.
Japan, Kioto I O.
(Roggia)
1410
            June 10
1411
            June 6
Dec. 24
1411
1412
            April 19
            Aug.
1413
                    -8
                             Japan, Kioto I O.

Italy, Vieste in (Foggia) II B.

Italy, S. Sepolero, Florence, Arezzo, other places in (Tuscany) and in Bologna II M. & B.

Austria-Hungary, throughout Dalmatia I M.

Japan, Kioto II Mi.

Japan, Kioto II Mi.
1413
            Dec. 17
1414
1414
            Aug. 3
1418
            April 7
            Oct. 28
1419
                             Japan, Kioto
1420
            Aug. 15
                                                      0.
                                                I
                             Japan, (Sagami, Musashi, Awa, Kazusa, Shimosa, Hitachi,
Kotsuke, Shimotsuke) III O.
            Sept. 26
1420
1420
                             Spain, Province of (Catalonia), Amer
                             China, Nankin; (Anhui), Luchou Fu II Italy, Rome I B.
1425
            Mar. 8
1425
1425
            Aug. 10
                             Italy, Ferrara and Venice
                                                                  I B.
                             Japan, Kioto II O.
Japan, Kioto I Mi.
China, Pekin and Nankin
          Aug. 10-24
1425
1425
            Dec. 14
1426
            Aug. 15
                                                                  II H.
                             Japan, Kioto I O.
1426
            Oct. 31
            May 15
1427
                             Spain, especially at Olot in (Catalonia), also at Montpellier
                                    in France II M.
1428
            Feb. 2
                             Ditto II M.
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A.D.
                           Italy, Forli and Cesena in (Emilia) and in (Romagna)
1428
           July
                   3
                                                                                                 II
                                                0.
                           Japan, Kioto
                                              T
1428
           Oct.
                   4
           Dec. 13
                           Switzerland, Bâle and the country round I
1428
                          Italy, Venice II B.
Spain (Catalonia, Aragen and Roussillon), also Ciudad
1429
1431
           April 24
                           Real in (New Castile)
Japan (Ise, Omi) II O.
                                                              I M.
1433
           Feb. 23
                           Italy, Bologna, Modena and Forli I B.
           May 4
Oct. 29
1433
                          Japan (Shimosa, Sagami), Kamakura; Kioto and Aizu
II Mi. Omori gives Nov. 7.
Italy, Siena I B.
1433
1436
           March
                           Japan, Aizu II O.
       Aug. 30
End of March
1436
                          Italy, Siena I M. & B.
Italy, Parma, Piacenza and environs
1436
           June 10
Jan. 22
1438
                                                                          \mathbf{II}
1439
                          Japan, Kioto II O.
Japan, Aizu, Kioto I
           Oct. 3
Oct. 26
1440
                          China (Kansu), Chuanglang in Liangchou Fu III II.
Japan, Kioto I Mi.
1440
1442
           March 1
1442
           Dec.
                   1
                           Japan (Kotsuke)
                                                  1
                                                В.
                          Italy, Sicily II B.
Austria and Bohemia, Glatz in Silesia, Poland and especially
1442
\bar{1}443
           June 5
                          Hungary III
Japan, Kioto I Mi.
                                                     M. & Ra.
1444
           May 14
                           Japan, Kioto III O.
1445
           Jan.
                   G
                          Japan, Kioto I O.
Italy, Citta di Castello in (Umbria) II B.
Italy, Naples III B.
1447
           Aug. 14
1448
           April 26
1448
                           All Japan. Three large earthquakes
1448
                                                                           \mathbf{III}
          May
1449
                   7
                           Japan (Yamashiro), Kioto; (Yamato) III Mi.
1450
                           Italy, Sicily II B.
                           Japan, Kamakura I
Japan, Kioto I O.
1452
           Jan. 10
1452
           Sept.
                           Italy, Alessandria in (Milan)
1452
           Sept.
                                                                 I B.
1453
           Sept. 15
                           Japan, Kioto I Mi.
1453
           Sept. 28
Dec. 21
                           Italy, Florence and environs
                                                                 III
                                                                       В.
                           Japan, Kotsuke I Mi.
Japan, Kamakura I O.
1454
1455
           Jan.
1455
                           Italy, Spilimbergo and elsewhere in (Udine)
           Feb.
                   3
                                                                                        В.
           Dec. 20
                           Italy, Bologna and Modena I B.
1455
                           Japan, Kioto I Mi.
Italy, Siena II B.
1456
           Feb.
                   6
1456
           Aug. 22
                           Italy, all the south, especially Brindisi, Ariano, Avellino and Naples III B.
1456
           Dec.
           April 26
                           Italy, Citta di Castello in (Umbria)
1457
                                                                         II
1458
                           Japan, Kioto I
Japan, Kioto I
           Feb. 25
                                                  o.
1458
           April 7
                                                 O.
                           Armenia, Erzingan
Japan, Kioto I (
Japan, Kioto I (
1458
                                                    III M. & O.
1460
           Mar. 12
                                                  0.
           June 23
1460
                                                  O.
1460
           Nov. 19
                           Japan, Kioto
                                             I
                                                  Mi.
1460
                           Mexico, Valley of Mexico III
                                                                    0.B.
1461 June & August Italy, Buccino in (Salerno) II B.
1461 Nov. 20 Italy, Aquila II M.
1461 Nov. 27 Italy, Aquila, Teramo in (Abruzzi) and in Perugia III B.
1463 Sept. Italy, Florence I B.
           May 22
1464
                                             1
                           Japan, Kioto
                                                 0.
                           Italy, Reggio in (Emilia) I B.
China (Chihli), Tiensin; also (Ssuchuan), Chengtu Fu
1465
           April
1465
           May
                                                                                                 п
1466
                           Italy (Salerno and Basilicata) II B
Japan (Yamashiro, Yamato) II O.
           Jan. 14
May 29
1466
                           France, Soissons and the neighbourhood II M. Japan, Kioto I Mi. Japan, Kioto, Nara I O.
1466
           Summer
1467
           Feb.
                  - 3
           April 10
1467
                           China (Chihli), Hsuanhua Fu; (Shansi), Tatu
Sochou in Soping Fu and Weiguen III H.
1467
           June 27
                                                                     (Shansi), Tatung Fu,
1467
           July
                           Italy, Argenta in Ferrara II B.
Italy, Siena I B.
1467
           Sept.
           Mar.
1468
                    9
                           Japan, Kioto I
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A.D.
                         Italy, Rimini
                                          II B.
1468
          July
                         Mexico, Xochitepec on coast (Vera Cruz) III O. B. Greece, Zante, Cephalonia III P.
1469
1469
           Spring
                         China (Honan), Juning Fu; (Hupeh), Yochou Fu, Wu-
chang Fu, Hanyang Fu 11 H.
Italy, Casio Castello in (Bologna) I B.
1470
          Jan.
1470
          April 15
                         Japan, Kioto, Nara I O.
Italy, Friuli in (Udine) I B.
1471
          Feb.
                 - 5
          May 14
1472
                         Italy, Milan, Pavia and Piacenza III B.
1473
          May
                         Italy, Modena I B.
1474
          Mar. 11
          Oct. 24
                         China (Yunnan),
1474
                                                 Hoching in Lichiang Fu
                                                                                      III
                                                                                            H.
                                M. & O. give Oct. 27.
                          Italy, Ancona I B.
1474
           August
                         China (Kansu), Tashaching in Lingchou, Chingyang Fu
1474
           Nov. 24
                                                                                             TT
                         Mexico, Valley of Mexico III O. B.
1474
                          Japan, Kioto I
Japan, Aizu II
                                               0.
1474
           Winter
         May 29
Feb. 18 or
1475
1477
          Mar. 19
                         China (Kansu), Lintao and Kungchang II H.
1477
         May 13
                         China (Kansu), Kanchou, Ninghsia, Liangchou; (Shensi),
                                Yulin and (Shantung), Yichou III H.
                         Japan, Kioto I O.
China (Ssuchuan), Chengtu
1477
          Dec. 20
1478
           August
                                                           III
                                                                  H.
                          Japan, Aizu II O.
          Sept. 27
1479
           Oct. 10
                          Italy (Emilia), Forli
                                                    I
1479
                                                       в.
                          Italy, Monteprandone and elsewhere in (Ascoli Piceno) I
1480
                         England, Norwich I M. & W.
China (Kiangsu), Nankin, Huaian Fu, Yangchou Fu;
(Anhui), Fengyang Fu, Luchou Fu, Hochou, Ying-
chou Fu; (Shantung), Yenchou Fu; (Honan),
Honan Fu III H., M. & O.
1480
1481
          Mar. 10
                                               0.
           April 26
                          Japan, Nara I O.
Italy (Tuscany), Fivizzano II
1481
1481
          May
                                                                B.
III M. & O.
                          Asia Minor, Armenia, Erzingan
1482
                          Japan, Nara I O.
1483
           Feb. 16
                          Italy (Emilia), Forli, Cesena II
           Aug. 11
1483
                          Italy (Emilia), Cervia in Ravenna II
1484
                                                                         В.
                          Italy, Lamentana, Castelnuovo and other places in
(Latium) I B.
China (Chihli), Imperial City Pekin, Yungping, Hsuanhua
1484
         Jan. 19-20
1484
           Jan. 29
                                                        H.
                                and Liaotung III
1485
                         China (Kansu), Kuyuan in Pinglian Fu, Lanho, Tao and
           April 17
                          Min in Kungchang Fu II H.
China (Chihli), Chichou, Shuntien Fu, Tsunhua
1485
           April 27
                                                                                   II
1485
           Oct. 16
                         China (Kuangtung), Lienchou; (Kuangsi), Wuchou
                                H.
                         Japan, Nara, Kioto I O.
1486
           June 6
           July 20
                          China (Shensi), Ningchiang in Hanchung Fu, Paochi in
Fenhsiang Fu II H.
1486
                          China (Ssuchuan), Chengtu Fu I H.
Italy, Verona II B.
Italy, Padua I B.
1486
           Oct. 6
Jan. 11
1487
1487
           Dec.
1488
           July 31
                          Italy, Pozzuoli in (Naples) II B.
                          China (Ssuchuan), Han, Mou, Chengtu Fu
China (Chihli), Hsuanhua Fu II H.
1488
           Sept. 16
           Sept. 22
1488
           May 29
                          Japan, Aizu II O.
1489
           August
1489
                          Japan, Kioto I
                                                0.
            27-30
                          Japan, Kioto I O.
1489
           Sept. 11
                          Italy, S. Sepolcro in (Arezzo)
1489
                                                               II B.
1490
                          Italy, Alcara in (Messina) I
                                                             в.
                          Greece, in the Archipelago, especially in the island of Cos. 5,000 people perished III M.
1491
        End of Oct.
1492
                          Italy, Verona II B.
           June 29
                                            1
                                                o.
1492
                          Japan, Kioto
           July 19
Aug. 18
1492
                          Japan, Aizu III O.
Japan, Kioto, Aizu I Mi.
Japan, Kioto, Nara I Mi.
                                          III
1493
1493
           Nov. 17
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A.D.
                                Japan, Kioto, Nara I O.
Japan, Aizu I O.
China (Yunnan), Chuching Fu; also at Pekin and Nan-
kin III H.
Italy, Messina II B.
             Dec. 20
1493
             Feb. 21
1494
             Mar. 25
1494
                                Italy, Messina
             May. 28
1494
                                Japan, Nara, Kioto II
             June 10
                                                                      Mi.
1494
                                Italy, Lantosca, Roccabi
Nice II B.
China (Kansu), Ninghsia
                                          Lantosca, Roccabigliera, Bollena and throughout
Nice II B.
             June 13
1494
1495
             April 10
                                                                       11
                                                                              н.
                                Japan, Kamakura
             Sept. 12
                                                              I Mi.
1495
                                Italy, Ferrara and Venice
             Dec. 13
1495
                                Mexico, Valley of Mexico
                                                                        Ш
                                                                                O. B.
1496
                                China, Pekin and Nankin
1496
                               China, Fekhi and Japan, Kioto I O. China (Chibli), Chenting Fu now forming Chengting in Chinho; (Shansi), Taiyuan Fu, Tunliu in Luan Fu; (Shensi), Yulin Fu; (Kansu), Chenfan in Liangchou Fu Lingchou, Ninghsia Fu II H.
1497
             Nov. 21
1497
                                All Japan; sea waves III Mi.
Japan, whole of Hondo, sea waves at (Ise, Kii, Mikawa,
Totomi, Suruga, Izu, Sagami) III Mi.
1498
             July
             Sept. 20
1498
                                Japan, Kioto, Nara
Italy, Messina II
1498
             Dec.
             Nov. 19
                                                              в.
1499
                                Italy, Messina II B.
Italy, Naples and Messina II B.
Japan (Totomi); sea waves III O.
China, Pekin, Nankin; (Anhui), Fengyang I H.
China (Shensi), Yenan Fu, Hua, Hsingyang Fu, Chaoyi,
1500
             January
             July 10
Nov. 18
Jan. 19
1500
1500
1501
                                Hisienyang in Hisian Fu, Tungkuan in Tungchou Fu; (Shansi), Puchou Fu; (Kansu), Chingyang III H. China (Fukien), Fuchou Fu, Hisinghua Fu, Chuanchou Fu, Changchou Fu II H.
             Feb. 15
1501
             Mar. 5 to
                                China (Shansi), Puchou Fu, about 29 shocks I H., Ho.,
1501
              April 2
                                        M. & O.
                                Italy, Modena and environs, Parma, Bologna, Ferrara B.
1501
             June
1502 Jan. 23 Italy, Cittaducale in (Aquila) II
1502 May or Sept. 23 Italy, Urbino I B.
1502 Jan. 28 Italy, Cuneo in (Piedmont) II I
1502 Jan. 28 Japan (Echigo) III C
                                                                                    В.
                                                                           II B.
                                China (Kiangsu), Nankin, Hsuchou Fu; (Chihli), Taming
Fu, Shunte Fu; (Shantung), Chinan Fu, Tunchang
1502
             Oct. 17
                                         Fu, Yenchou Fu and Puchou in Tsaochou Fu
                                China (Shansi), So, Tai, Ying, Shanyin, Yangchu. Mayi in Tatung Fu II H.
             Nov. 24
1502
                                Spain, in (Andalusia), especially at Carmona, Seville and
Triana on the Guadalquivir II M.
1504
             April 5
1504
              End of
              autumn
                                Portugal I M.
                                Afghanistan, the high land of Kabul
1504
              June
                                                                                          Ι
                                                                                              Μ.
                                Italy, Venice II B.
1504
                                Italy, Bologna, Brescia, Ferrara
1504-5
            Dec.-Jan.
                                                                                   H
             July 6
July 11
                                Afghanistan, Kabul and Persia
China (Kansu), Ninghsia I H
                                                                                 III
1505
1505
                                                                            Η.
                                China (Chehkiang), Hangchou Fu, Chiahsing Fu, Shaohsing
Fu, Ningpo Fu; (Kiangsu), Nankin, Suchou Fu,
Sungchiang Fu, Changchou Fu, Chenchiang Fu;
1505
             Oct. 9-10
                                (Anhui), Ningkuo Fu, Taiping Fu I H.
China (Shansi), Puchou, Anyi in Chich, Chiang; (Chihli),
1505
              Oct. 16
                                         Wanchuan in Hsuanhua Fu
                                                                                     III
                                                                                             н.
                                China (Shensi), Tungchou Fu
1506
         Mar. 17 to 19
                                                                                    H.
                                China (Yunnan), Yunnan Fu II H.
China (Shantung), Aoshanwei, Laichou Fu II H.
Japan (Higo) III O.
China (Yunnan), Anchou, Hsinhsingchou in Yunnan Fu
1506
              April 26
1506
              Aug. 26
Mar. 31
1507
1507
              Nov.
                                         IÌΙ
                                               H.
                                Italy, Reggio in (Calabria) and in Sicily, especially at Messina III B.
1509
              Feb. 25
              April 19
1509
                                 Italy, Solarolo, Faenza in (Emilia)
                                                                                       II
1509
              May 26
                                China (Hupeh), Wuchang Fu I H.
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A.D.
                              Turkey, Constantinople and all the Turkish dominions in
            Sept. 14
1509
                                     Europe and Asia Minor, Techorum, Gallipoli, and Demiloka. The sea came over the walls at Constanti-
                                     nople and Galata III M.
                              Italy, Alessandria in (Milan)
                                                                        \Pi
                                                                              В.
1510
            February
                              Bavaria, Nordlingen; 2,000 perished III M.
Iceland, Skalholt, 20 miles W. of Hecla, eruption of
Hecla I Th.
1510
            June 10
            July 26
1510
                              Japan, Kioto (Yamashiro, Mikawa, Yamato, Kawachi,
Izumi, Settsu) III Mi.
1510
            Sept. 11
                             Japan (Totomi), with sea waves II Mi.
Italy, Cividale in (Friuli), Udine and many towns in
(Venetia) and Triest III B.
Italy, Cividale II B.
1510
            Oct.
            Mar. 26
1511
1511
            Aug.
                      8
                              Japan (Settsu, Hitachi)
            Sept.
                                                                 III Mi.
1511
                     0
                             Japan (Settsu, Ilitach) III Mi.
China (Yunnan), Tengchuan in Tali Fu, Chienchuan and
Hoching in Lichiang Fu III H.
China (Chihli), Pekin, Paoting Fu, Hochien Fu; (Shantung), Wuting Fu II H.
Japan, Kioto I Mi.
1511
            Nov. 17
1511
            Dec.
            Feb. 23
                              Japan, Kioto
1512
            June 21
                              Japan (Yamashiro)
                                                          II Mi.
1512
                             China (Yunnan). Chuhsiung Fu I II.
China (Yunnan), Tengchung now Tengyuen in Yungchang
Fu III H.
1512
            June 22
1512
            Oct.
                             China (1 u...

Fu III H.

Mexico, Valley of Mexico
Mexico, Valley of Mexico
Japan, Kioto I O.

Caseo Zante III P.
1512
                                                                        0.B.
                                                                  II O.B.
1513
            Jan. 13
1514
            April 16
1514
                              Japan, Kioto
            May 2
Oct. 20
                                                  I Mi.
1514
                              China (Ssuchuan), Hsuchou Fu; (Shansi), Yutzu, Tai,
1514
                                     Ping in Taiyuan Fu, Tatung Fu and ten more towns
                             China (Yunnan), Yunnan Fu, Chaochou in Tali Fu and
Yungning now Nanning in Chuching Fu III H.
Japan (Kai) II O.
1515
            June 17
            Aug. 20
Oct. 20
1516
                             China, Nankin; (Hupeh), Wuchang Fu I H.
China (Yunnan), Chuhsiung in Tali Fu, Menghua I H.
China (Kiangsi), Fuchou Fu; (Shantung), Chinning Fu;
(Chehkiang), Hangchou Fu I H.
1516
1517
            Jan.
                      5
1517
            May
                     9
                                                        o.
1517
            June 18
                              Japan, Kioto
                                                       o.
1517
                              Japan, Aizu
                                                II
            July 18
                              China (Yunnan), Hosi, Hsio, Tunghai in Linan Fu and
1517
            July 12
                                     Hsinhsing in Chengchiang Fu III H. a (Yunnan), Tali Fu, Menghua I H.
                              China (Yunnan), Tali Fu, Menghua
Japan, Kioto I O.
1518
            July
            April 27
                              Japan, Kioto
1519
                              China (Yunnan), Anning in Yunnan Fu, Hoching in
Lichiang Fu, Yao in Chuhsiung Fu, Pinchuan in Tali
            Mar. 26
1520
                                                               III H.
                                     Fu and Menghua
                              China (Yunnan), Chingtung II H.
China (Shantung), Chinan Fu, Tungchang Fu; (Honan),
1520
            Sept. 17
            Sept. 21
1520
                              Kaifeng Fu I H.
Japan, Kioto I O.
1520
            Dec.
                     1
1520
                              Chile, provinces in south Chile I Mon.
            Oct. 21
Nov. 28
                              Japan, Nara I O.
Japan, Kioto, Nara
1521
1521
                                                           I 0.
1523
                              China, Nankin; (Shantung, Honan and Shensi), Hsian
            January
                                     Fu
                                           H H.
                              China (Chehkiang), Tinghai and many neighbouring districts II II.
1523
            Aug. 14
            Feb. 5
1524
                              China, Pekin, Nankin; (Honan, Shansi, Shensi)
            Feb. 20
                              China (Kiangsu), Nankin, Suchou Fu, Changchou Fu I
1524
                                     H.
                             China (Anhui), Fengyang Fu; (Kaingsu), Hsuchou Fu; (Honan), Huaiching Fu, Kaifeng Fu II H.
Japan, Kamakura, Aizu II O.
China (Yunnan), Tengchung in Yungchang Fu; (Kuei-
1525
            Sept. 3
1525
            Sept. 20
1526
            May 22
                                     chou), Annanwei
                                                              II
1527
                              Japan, Kioto I O.
            Mar. 25
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Italy, Pistoia in (Tuscany)
Italy (Udine) I B.

 \mathbf{II}

1527

1529

October

April

1557

July 5

Japan, Kioto I Mi.

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A.D.
                           Italy, Cremona I B.
Venezuela, coast of Paria and Cumana, Cubacua; the
1529
           July
           Sept. 1
1530
                                 sea rose four fathoms and sank again II M.
                           Italy, Siena
           Nov. 11
                                               В.
1530
                           Spain and Portugal,
                                 and Portugal, Lisbon, 1,500 houses destroyed;
the remainder of Portugal, Spain, the opposite coast
of Africa, the Canton du Vaud in Switzerland, and
Flanders; the sea was greatly agitated III M.
1531
           Jan. 26
1531
          Beginning
                           Switzerland, Bâle
           of year-
                                                  1
                                                       M.
           Mar. 23
                           Italy, Catania, all Sicily II B.
1536
        Aug. 10-11
1536
                           Italy, Genoa II
                                                 в.
           Oct. 22
                           China, Pekin and neighbouring districts I H.
1536
1537
           May
                           Italy, Catania, Corleone in (Palermo), Messina, Trapani
II B.
                          Italy, Pozzuoli in (Naples) I
Mexico, Valley of Mexico III
Italy, Tuscany (1538?) I B.
Ecuador, Antisana III R.S.
1537
           Sept. 26
1537
                                                                   0.B.
1537
1538
       Sept. 26-27
1538
                           Italy, Pozzuoli and neighbourhood II
           April 8
                           Italy (Marches), Fermo I
1540
                           ltaly, Alessandria in (Milan) II B.
1541
          Oct. 22-23
1542
           Mar. 17
                           Mexico, Oaxaca II
                                                     0.B.
          June 9 or
1542
           12 or 13
                           Turkey, Constantinople I M.
           June 13
1542
                           Italy, Mugello, Florence, Pistoia and other towns in (Tus-
                                 cany) III
                                                в.
                           China (Shansi, Shensi and N. Kansu)
1542
           November
                                                                               H.
1542
           Dec. 10
                          Italy, Syracuse, Catania
Sciacca III B.
Chile, Tarapaca I Mon.
                                   Syracuse, Catania, felt in Palermo, Trapani,
1543
                           Italy (Calabria) II
1544
           January
                                                     В.
                           Japan (Satsuma) II O.
Japan (Satsuma) II Mi.
           May 23
1544
1545
1545
           June 9
                           Italy, Borgotaro and several places in (Parma and Piacenza)
                                  H B.
                           In Palestine, Joppa, Sichem or Nablous, Rama; the
1546
                                  sea retired several miles I
                                                                     M.
                   2
                           Iceland, Southland, Olfus; many farms and some houses
1546
           June
                                  fell II Th.
                           Italy, Reggio in (Emilia), Modena I B. Italy, Catania in Sicily I B.
1547
           Feb. 10
1548
                           Persia, Khorasan, Qayin; 3,000 killed III
1549
                           Italy (Calabria); Messina
Japan, Kioto I O.
1549
                                                             Ι
                                                                 в.
                           Japan, Kioto I O.
Italy, Savona in (Milan) I B.
Japan (Kai) II O.
1549
           Mar.
1549
           May
                   3
           May 21
1549
                           Italy, Cuneo in (Piedmont) I B.
Italy, Ariano, Vallo di Diano II B.
1550
           Feb. 28
1550
           Jan. 28
                           Portugal, Lisbon; 200 houses thrown down II
1551
                                                                                         M.
                          Iceland, Southland I Th.
Saxony, basin of the Elbe, principally at Meissen I
Japan, Kamakura II O.
1552
           Feb.
           Aug. 17
1553
1553
           Oct. 11
1554
           May
                           Iceland, strong shocks; no houses are said to have fallen;
                           eruption of Heela I Greece, Zante III P. Italy, Florence I B. Japan, Aizu II O.
                                                             Th.
                  7
1554
           July
           Nov. 28
1554
1555
           Sept. 14
                           China (Shensi), Weinan, Chaoyi, Sanyuan in Hsian Fu,
Huachou in Tungchou Fu; (Shansi), Puchou Fu;
and (Honan). About 830,000 people were killed
1556
           Jan. 24
                                  \mathbf{III}
                                        H.
                                        Austria in the "Windischmark," Hungary,
1556
           Jan. 24
                           Bavaria,
                                  Croatia, Dalmatia and Moravia III M.
n. Kioto I Mi.
           Mar. 22
                           Japan, Kioto I Mi.
Italy, Bolena in (Nice)
1556
           April 20
1556
                                                               В.
                                                         II
           May 10
Nov. 17?
                           Turkey, Constantinople I M.
Italy, Rossano in (Cosenza) II
1556
1556
1557
                           Italy, Campagnano in (Ischia) I
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A.D.
1558
                              Italy, Siena, Florence and throughout (Tuscany) I
            April 13
1558
                              Mexico, throughout the country
            April
                                                                           III
                                                                                   O.B.
1558
            Nov. 24
                              China (Shensi), Huachou in Tungchou Fu II
                             Italy, Barletta, Bisceglie in (Apulia) II
China (Kansu), Shantan in Kanchou Fu
Argentina, Mendoza I Mon.
1560
            May 11
Feb. 21
                                                                                        B.
                                                                                 II
1561
                                                                                       \mathbf{H}
                                                                                             H.
1561
            Mar.
                     2
                              Italy, Buccino in (Salerno) and throughout the (Terra de
Lavoro, Principato-Citra and the Basilicata) III
1561
           July-Aug.
1561
                              China (Shansi), Taiyuan Fu, Tatung Fu; (Shensi), Yulin
                    5
            Aug.
                                     Fu; (Kansu), Ninghsia Fu and Kuyuan in Pingling
Fu III H.
                              Italy, Ferrara
1561
            Nov. 24
                                                   II
                              Italy, Ravenna
1561
                                                     Ι
                                                        В.
1562
                              China (Kansu), Ninghsia Fu; Pekin
            Feb. 14
                                                                                  П
                             Chile, Santiago, Arauco, sea waves III Mon. & P.
Japan (Hitachi, Iwaki, Shimotsuke); Aizu III O.
Japan (Hitachi, Musashi, Iwaki, Shimotsuke); and Aizu
            Oct. 28
Feb. 28
Dec. 27
1562
1563
1563
                                     IÌI O.
1564
                              West Indies, Hayti, Conception de la Vega III O.D.
                              Japan, Kioto I O.
1564
            April 27
                              France, at Nice and in Provence II M.
1564
            July
                             Italy, Bollena, Rocchia, Roccabigliera and other places in
1564 July 20-Aug. 5
                                     the valley of Vesubia and neighbourhood in (Nice)
                                            В.
1565
                             France, neighbourhood of Nice I M.
1566
                             China (Fukien), Fuchou Fu, Hsinghua Fu, Chuachou Fu
            Jan. 22
                                    1
                                        н.
                             Italy, Randazzo, Messina
1566
            Nov. 30
                                                                   Ι
                             Italy, Norcia in (Perugia)
1567
            Aug. 27
Dec. 30
                                                                       В.
                             Mexico (Mexico) and Chapala in (Jalisco) II O.B.
China (Kansu), Chingyang Fu, Huan, Ninghsia Fu;
(Shensi), Changhan; (Shansi), Anyi and Puchou Fu;
(Hupeh) Yunyang; (Honan) III H.
China (Chihli), Pekin, Leting, Yungping Fu; (Shantung),
1567
1568
            April
1568
            April 25
                                    Tengchou; also at (Ssuchuan), Shunching; Castle of Ningyuen was destroyed III H.
                             China (Honan), Huaiching Fu, Nayang Fu, Juning Fu; (Kansu), Ninghsia II H.
China (Shensi), Fenghsiang Fu, Hsian Fu; (Kansu), Pingling Fu, Chingyang Fu II H.
Mexico, Cocula and Tzacoalco in (Jalisco) II O.B.
1568
            April 30
1568
            May
                     2
1568
            Dec. 27
1570
                             Chile, Concepcion, with sea waves
            Feb.
                     8
                                                                             III
                                                                                    Mon.
                             Italy, Pozzuoli in (Naples)
1570
            June 17
                                                                    1
                                                                        В.
1570
                             Italy, Ferrara, Treviso, Padua, Bologna and Venice
B.
            Nov. 17
                             Tyrol and Germany, Innsbruck, Munich and Augsburg
1572
            Jan. 28
                                    I
                                        M.
                             Japan, Nara
1572
            Mar. 14
1572
                             Italy, Parma I B.
Italy, Cartoceto in (Pesaro)
            June
            July 13
1572
                                                                     II B.
            July 20
Dec. 21
1572
                             Japan, Nara, Kioto
                                                          I O.
1572
                             Switzerland, the whole of the canton of Glarus
            Nov. 14
1573
                             Mexico, Colima, Guadalajara; (Michoacan); Oaxaca
                                     O.B.
                           O.B.
Baden or Transylvania? Offenburg I M.
England, Tewkesbury I M. & W.
China (Fukien), Changting in Tingchou Fu II H.
China (Hunan, Hupeh, Kiangsi) I H.
Chile, Santiago, Valdivia III Mon. & P.
Italy, Naples? I B.
China (Hupeh), Hsiangyang Fu, Yunyang Fu; (Honan),
1574
1574
1574
            Mar. 11
1575
           February
1575
            Mar. 17
1575
            June 5
1575
                     9
            June
                             Nanyang I H.
China (Fulkien), Fuchou Fu, Tingchou Fu, Changchou Fu;
1575
            July 28
                                    (Kuangtung), Chaochou Fu I
                                                                                 H.
                             China (Kansu), Kungchang Fu II
1575
            Nov. 17
                             Chile, Santiago, as far as Castro
                                                                          III
1575
            Dec. 16
                                                                                  Mon.
1575
                             Mexico, Zacateotlan and Acatzinco (Puebla)
China (Yunnan), Yungehang Fu III H.
Italy, Sciacca in (Girgenti) II B.
                                                                                            I 0.B.
1577
         Mar. 12 & 13
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1578

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A.D.
                                 Peru, Lima II H.J.
 1578
               June 17
                                 Iceland, Southland, Olfus; many farms fell
                                                                                                      II
                                                                                                             Th.
 1578
               Nov.
                       1
                                 Japan (Mikawa)
                                                           ÍΙ
                                                                  0.
                        8
 1578
               Dec.
                                 Japan, Nara
                                                            0.
 1579
              Dec. 19
                                 West Indies, Cuba, Santiago
                                                                               III
 1580
                                 England, London, Dover I M. & W.
China (Chihli), Tsunhua II H.
China (Shansi), Chingping, Pinglu, Pingyang Fu II H.
China (Chihli), Yuchou in Hsuanhua Fu; (Shansi), Tatung
Fu I H.
 1580
               April
              June 25
1580
 1580
              Sept.
              May 18
1581
                                 Iccland, Rangarvellir and Hvolhreppr III
1581
              May
                                 Peru, Arequipa III
1582
              Jan. 16
                                                                  Mon.
                                 Peru, Arequipa also at Lima
Italy, Pozzuoli and Naples
                                                                              III
                                                                                     H.J., M. See Jan. 16.
1582
              Jan. 22
                                                                            I B.
1582
              May
              July
                                                          III
                                 Peru, Arequipa
1582
                                 Japan, Nara
Japan, Nara
              Sept. 16
                                                           0.
1582
                                                     I 0.
              Feb. 10
1583
              Oct. 11
                                 Mexico, throughout the country III Italy, Savoy, Valais in Switzerland I
1583
1584
              Mar.
                                 Iceland, South Country II Th.
1584
                                 Italy, San Piero in Bagno (Romagna)
                                                                                           II
1584
              Sept. 10
                                 Throughout Switzerland, Burgundy, Dauphiny, Piedmont.
1584
              Mar.
                                         and Greifensee I
                                                                     M.
                               Armenia, Erzingan III M. & O.
China (Kiangsu), Huaian Fu, Yangchou, Chiangning Fu;
(Anhui), Louchou Fu I H.
China (Shansi), Tatung Fu I H.
Japan (Mikawa, Yamato) II O.
1584
              June 17
              Feb.
1585
1585
              April
              July 31
1585
                                 Japan, Kioto and Central Japan
1586
              Jan.
1586
              July
                                 Peru, Lima
                                                   III
                                                            H.J.
                                                    III
                                                            M.
                                 Guatemala
1586
                                                         III
                                                                   R.S.
1587
              Aug. 30
                                 Ecuador, Quito
                                 Italy, Dronero in (Cuneo) I
Japan (Suruga, Totomi) III
1588
              Oct.
              Mar. 17
                                                                               Mi.
1589
                                 Central Europe, Austria, especially at Vienna, Maurach,
1590
              Sept. 15
                                         Tuln, Hungary, Moravia, Glatz in Silesia, Bohemia, Saxony and the Alps III M. & Ra.
1590
              July 7
                                 China (Kansu), Kanchou and Lintao
                                 Peru, Cumana
                                                        III H.J.
1590
                                 Chile III P.
1590
                                Chile III P.
Italy, Vicenza (Romagna), Forli, Venice
Azores, St. Michel; sea waves. II M.
China (Kansu), Shantanwei II H.
Greece, Zante III P.
Japan, Tokio I O.
Italy, Trevi in (Perugia) I B.
Italy, Bergamo in (Lombardy) I B.
Italy, Copleone in (Palermo) II B.
1591
              July 10
1591
              July 26
Nov 21
1591
              May
1592
1592
              Oct.
              Nov. 24
1592
1593
             Mar. 8-9
                                Italy, Corleone in (Palermo) II B.
1593
              April 24
1595
                                Japan, Kioto (Yamashiro, Yumato, Omi, Tamba, Kawachi,
            Aug. 17
                                                      I Mi.
                                        Settsu)
                                Settsu) 1 Mi.
Japan, Kioto, Osaka; (Satsuma) III Mi.
Japan, Kioto, Kinat; (Kii, Chikuzen) III O.
England (Kent) I M. & W.
Russia, Nizhni-Novgorod III M. & O.
Iceland, Skalholt; many farms fell II Th.
Iceland, Olfus, with eruption of Hecla II Th.
Portugal Licken II M.
1596
             Aug. 5
Sept. 4
1596
1596
1596
1597
             Jan. 3
1597
             Spring
July 28
1597
                                Portugal, Lisbon II
                                China (Hupch), Lisuon, II M.

Italy, Scarperia in (Florence) II B.

China (Shingking), Liaoyang and Kuangning China (Hupch), Changle in Yichang II H.

Asia Minor, Amasia and Chorum III M. & 24th, 17h. 20m., G.M.T Philippines, Mani Luzon III S.M.
             Aug. 3-4
1597
1597
             Oct.
1598
             Feb.
                        7
                                                                                            м. & О.
1598
                                                                       Philippines, Manila, Southern
1599
             June 25
1599
                                China (Hupeh), Anlu Fu, Mienyang; (Hunan), Yochou Fu
             Sept. 13
                                        I
                                           H.
                                Italy, Reggio in (Calabria), Messina and surrounding country I B.
Italy, Cascia in (Perugia) I B.
Philippines, Manila II S.M.
Italy, Florence I B.
1599
1599-1600
              Jan.
1600
             July 5-6
1600
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A.D.
                            Japan, Tsugaru, with eruption of Iwakiyama III
1600
           July 23
1600
           Sept.
                            Italy, Issime in (Aosta) II B.
           Nov.
                            Philippines, Manila I
                                                             S.M.
1600
1601
           Jan. 16
                            Philippines, Manila
                                                         II S.M.
                            Throughout almost all Europe, especially in Germany and
1601
           Sept. 8
                                    part of Asia; most violent in Switzerland, Austria,
                                    Bohemia, Bavaria, Swabia, Alsace and part of the
                                    Netherlands I M.
1603
                            China (Hupeh), Chunghsiang in Anlu Fu II
Japan, Tokio I O.
           May 30
1603
           June 7
1603
                            Mexico (Oaxaca), especially Mixteca III
Italy, Perugia I B.
                                                                                       O.B.
1604
                                                Ī
                                                    0.
1604
          Jan. 22-23
                            Japan, Kioto
                            Mexico, Oaxaca town III O.B.
Japan, Kioto I O.
China (Kansu), Kungchang Fu; (Shensi), Lichaun, Hsian
Fu; (Kiangsi), Paiyang in Kuanghsin Fu; (Kiang-
su), Wu in Suchou Fu. Possibly two earthquakes
1604
             March
1604
           Aug. 12
Oct. 25
1604
                                    HÍ H.
1604
           Nov. 23
                            Peru, Arequipa III H.J. See Nov. 24
                            Chile and Peru, Arica to Arequipa
Nov. 23
1604
           Nov. 24
                                                                                    III
                                                                                           Mon.
1604
                             Chile, La Serena
                                                     I Mon.
          December
1605
           Jan. 31
                            Japan, Kiushu, Shikoku, Central Japan; with sea waves
                                    III Mi.
         July 14
Aug. 22
Feb. 2 & 16
1605
                             China (Kuangsi), Luchuan in Yulin
                                                                               III
                                                                                       н.
                            Italy, Bergamo I B.
Japan, Tokio I O.
China (Ssuchuan), Lungan Fu, Mou I H.
1606
1607
1607
            Sept. 16
            Jan.
1608
                    8
                            Mexico (Oaxaca) III
                                                           O.B.
1608
            Dec.
                    3
                             Philippines, Leyte Island, Dulag and Palo
                                                                                        П
                                                                                              S.M.
                            China (Kansu), Kanchou Fu, more than 840 lives lost;
(Chehkiang), Tungkuan in Shaohsing Fu, the land
opened for a length of 870 li, about 310 miles III
1609
            July 13
                            Italy, Nicastro in (Catanzaro) II B. Peru, Lima II H.J. Switzerland, Bale I M.
1609
            July 20
1609
            Oct. 19
Nov. 29
1610
1610
            Nov.
                            Philippines, East Luzon, along the Eastern Range Sierra
                                    Madre III
                                                     S.M.
1611
            Jan. 15
                             Italy, Val di Luserna in (Piedmont)
          Aug. 25-31
1611
                             Mexico, Mexico City and (Jalisco) III
                                                                                    0.B.
            Sept. 8
1611
                             Italy, Scarperia, Mugello and Florence
                                                                                    H
                                                                                        В.
1611
            Sept. 27
                             Japan, Aizu II O.
                             Japan, Sendai, Yezo, with sea waves III O.
Persia, Khorasan, Dughabad III Ol.
Italy, Roccabigliera, Loano and other places in (West
1611
            Dec.
                     2
                     9
1611
            Dec.
                            Italy, Roccabigliera, Loano
Liguria) II B.
China (Yunnan), Tali Fu, Wuting Fu, Chuching Fu, Yunnan Fu; also in Burma III H.

Yunnan Yunnan Fu and Chuching Fu III II.
Rielefeld and the
            Jan. 31
1612
1612
            Mar. 12
                            China (Yunnan), Yunnan Fu and Chuching Fu III II.
Germany, Westphalia, especially at Bielefeld and the
Castle of Sparenberg; also the Island of Candia and
several places in the Mediterranean; much des-
traction III M
1612
           July
1612
        Nov. 8-Dec. 7
                                    truction
                                                  III M.
1613
            Aug. 25
                             Italy, Naso in Messina III B.
Iceland, South Country, Skeld; farms fell
1613
                                                                                        II Th.
             Spring
1614
                             Azores, Island of Terceira, Angra, Praya
China (Shansi, Honan) II H.
            May 4
                                                                                     II
1614
            Oct. 24
1614
            Nov. 28
                             Japan, Kioto; (Echigo); sca waves III Mi.
China (Kiangsu), Yangchou Fn: (Hupeh), Langchan, now
1615
            Mar.
                                     Changyang, in Yichang Fu II n., Tokio III O.
                                                                                H.
1615
            June 26
                             Japan, Tokio
            Sept. 16
                             Chile, Arica III
1615
                                                      Mon.
                             Different parts of Switzerland II M.
1616
              March
            Sept. 9
Jan. 14
1616
                             Japan, Sendai II
                                                        0.
                             Germany, Freiburg in the Breisgau I M.
Italy, Saorgio and elsewhere in (Nice) II B.
1617
1617
            July
                     5
             Jan. 18
1618
                             Italy, Saorgio and elsewhere in (Nice)
India, Bombay, earthquake? III Ol.
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May 26

22.

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A.D.
1618
            Aug. 25
                              Throughout Switzerland, in the Pays du Vaud, Grisons and the Valteline III M.
                              and the Valteline III M.

China, Pekin; (Shansi), Ningwu Fu, and seventeen other districts II H.

Italy (Calabria) I B.
1618
             Nov. 17
             Jan.
1619
             Feb. 13
                               Mexico, Oaxaca and throughout most of the country
1619
                                       O.B.
                               Peru, Trujillo III H.J.
Iceland, Tengeyjarsysla (Northland)
1619
             Feb. 16
             Autumn
                                                                                          Th.
1619
                               Persia, Khorasan, Dughabad III
                                                                                 Ol.
1619
             Nov. 27
                              Philippines, Panay Island, Iloilo, Capiz III S.M.
China (Yunnan), Yunnan Fu; (Kuangtung), Chaoching
Fu, Huichou Fu; (Hupeh), Chingchou Fu, Chengtan
1620
1620
            Mar.
                     75
                                       Fu II H.
1621
             May 20
                               Switzerland, at Bâle and Neufchâtel, in the Canton du
                                       Vaud, at Geneva and in Savoy I M.
                               China (Shantung), Tungchang Fu; (Honan)
1622
            Mar. 18
                                                                                                  III
1622
             April 17
                               China (Shantung), Tungehang, and eight other districts
                                       III
                                            H.
                               Mexico, Zacatacas
                                                          III (
1622
            May
                                                                   0.B.
                               Mexico, Oaxaca town II O. Mexico, Zacatacas III O.B.
1622
             June
1622
             Sept.
             Oct. 25
1622
                               China (Kansu), Lungte and neighbouring districts in Ping-
                                       liang; about 11,800 houses were damaged and 12,000 people killed or wounded III H.
                               Japan, Kioto I O.
1622
             Nov. 18
                               China (Kiangsu), Nankin and six other districts, Yangchou Fu II H.
1624
             Feb. 10
                               Italy, Argenta in Ferrara II B.
China (Chihli), Shuntien Fu, Yungping Fu II
China (Chihli), Leting in Tungping Fu II
Japan (Shimotsuke) II O.
             Mar. 21
Mar. 31
1624
1624
           April 17-23
1624
             June 19
1624
             July 20
                               China (Chihli), Paoting Fu II
1624
                               West Indies, Cuba, Santiago III O.D.
Italy, Mineo in Catania II B.
1624
             October
1624
             Oct. 3-5
1624
             Nov. 9
                               Japan, Kioto I O.
1624
             Nov. 11
                               Iceland, Southland; many farms fell in Floi
                                                                                                II Th.
1625
                               Italy, Termoli in (Campobasso)
                                                                             I B.
1625
                               Italy, Rimini and environs I
             Dec. 5-6
                                                                             в.
                               Italy, Idmini and Chivions 1 D.C.
Colombia, Bogota, Caracas I O.D.
Italy, Girifalco in (Catanzaro) II B.
Italy, Macreata in the (Marches) I B.
China (Chihli), Taming and Kuangping: (Shantung),
1625
1626
          March-April
1626
             May 12
             June 28
1626
                                       Tungchang Fu; (Honan), Honan Fu; (Shansi),
Pingyang III H.
            Feb. 5 to
1627
                               China (Kansu), Ninghsia
Japan, Kioto I Mi.
Japan, Tokio I O.
             Mar. 18
                                                                     III H.
1627
             Feb. 26
1627
             Mar.
                      8
                               Italy, Accumoli in (Aquila) II B.
Italy, Region of Garganica in (Apulia), especially San
Severo, Serra Capriola, San Nicandro III B.
Philippines, N. Luzon (Cagayan, Ilocos Norte), Aparri,
Lavag III S.M.
1627
             July
1627
            July 30
1627
             August
                               Japan, Tokio II M
Italy, Parma I B.
1628
             Aug. 10
Oct. 3-4
                                                           Mi.
1628
                               Italy, Parma I B.
Philippines, S.E. Luzon (Ambos Camarines and Albay),
                              Camalig, Albay, Nueva Caceres III S.M. Germany, in the Duchy of Mecklenburg I M. Iceland, South country, Skalholt II Th. Arabia, Mecca, Medina? II M. Japan, Tokio II O. Peru, Lima II H.J. Japan, Tokio I O. China (Kansu). Lintee and K.
1628
1628
             Dec.
             Feb. 21
1630
1630
1630
             Aug.
             Nov. 27
1630
             Jan. 27
1631
                               China (Kansu), Lintao and Kungchang III H.
Italy, Torre del Greco and Naples, preceding an eruption of
Vesuvius I B.
             July 22
1631
1631
             Dec.
1632
                               Argentina, Esteco in (Salta)
1632
             June 17
                               China, Nankin also (Ssuchuan) I H,
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A.D.
                              Italy, Nicolosi in (Catania), preceding an eruption of Etna II B.
            Feb. 21-22
 1633
                              Mexico (Oaxaca), Puebla and Vera Cruz; extended from
the coast of Ecuador to Canada III O.B.
 1633
            Feb. 5 to
             July 17
Feb. 28
 1633
                              Japan Odawara III Mi.
                             S. Chile, Carelmapu I Mon. & P.
Iceland, Southland; farms fell in Olfus II Th.
Italy, Tregastagne, at foot of Etna and Messina, during
 1633
             May. 14
 1633
 1634-5
                                     eruption of Etna II B.
                             Italy, Matera in the (Basilicata)
1634
             Nov. 10
                             Japan, Tokio II O.
Japan, Matsumai, Yezo
1635
            Mar.
            Mar. 10
                                                                III TO.
1635
                             Japan, Tokio II
            Mar. 12
                                                        O.
1635
            Sept. 1
Sept. 30
Dec. 21
                                       II O.D.
1636
                             Malta
                             Matta II C.D.
Greece, Island of Zante II M. & P.
Philippines, S.W. Mindanao (Cotobato and Lanao), district around Illana Bay, Cotobato, Polloc III S.M.
China (Shensi), Hsian Fu II II.
Italy, throughout (Calabria), especially destructive from
1636
1636
1638
             January
1638
            Mar. 27
                             Oppido to beyond Bisignano, also in Zante III
B. & P.
U.S.A., New England II M.
1638
            June 2
                             Italy, Parma I B.
            Oct.
1638
                     6
                             England, Chichester I R.
Iceland, South country, Olfus II Th.
Japan, Tokio II O.
Italy, Amatrice and neighbouring towns in (Aquila) III
B.
1638
            Oct. 10
                             China (Shingking), Liaotung I H.
1638
1638
1639
            Mar. 12
Oct. 7-8
1639
                             Japan (Echigo) II O.
Persia, Tabriz and Damascus
1639
            Nov.
                             Persia, Tabriz and Damascus II M.
Italy, Badolato in (Catanzaro) II B
1640
1640
            June 19
                                                                              В.
                             Philippines, N. Luzon (Ilocos Norte), North part of (Moun-
1641
            Jan.
                     4
                             tain and Cagayan), Aparri, Laoag III S.M.
Venezuela, Caraccas I P.
1641
                             Persia, Tabriz; also felt at Bagdad III - M. also M. & O. Italy, Pontoremoli and throughout the Lunigiana in (Tus-
1641
            Feb. 5
            June 8-10
1641
                                     canv) I B.
                             Italy (Lombardy), Bergamo, Milan, Lecco and Parma I
B.
1642
            June 13
1643
            July 17
                             Italy, Troina in (Catania)
            Sept. 6
Nov. 11
                             Chile, Santiago I Mon.
China (Anhui), Fengyung I H.
China (Anhui), Hochiu, Mengcheng, Ying in Yingchou Fu
1643
1643
1644
            Jan. 12
                                        Ho.
                             China (Kiangsu), Hsiao, Feng, Pei, Suchien in Hsuchou
1644
            Jan. 15
                                    Fu I
                                               Ho.
                             5.30 a.m. Columbia, Pamplona III O.D.
Italy and France, Belvedere, Bollena, Roccabigliera,
Lantosca in (Nice), Aix and Marseilles II B.
1644
            Jan. 16
1644
            Feb. 15
                             China (Kiangsu), Chiangning Fu; (Kiangsi), Yuanchou, Wantsai, Fengi in Yuanchou Fu I Ho.
1644
            Mar.
1644
            March
                             Japan, Nikko II O. Japan (Ugo) II O.
1644
            Oct. 18
                             Japan (Ugo)
                                           P.
1645
                             Chile
                                     H
1645
                                    0m. G.M.T. Philippines; all Luzon except Ambos
Camarines and Albay III S.M.
            Nov. 30
                             12h. 0m. G.M.T.
1645
            Dec. 5
                             15h. G.M.T. Philippines, same district as Nov. 30 II S.M.
1645
                             Austria, Croatia, Karlstadt I F.
1646
                             Philippines, S. Luzon, Manila and neighbouring provinces I S.M.
            March
1646
            April 5
                             Italy, Leghorn
                             Italy, Aquila in (Abruzzi) I B.
1646
            April 28
1646
                             Italy, Ischitella, Gargano and other towns in (Fogg.a)
III B.
            May 31
                                          В.
                             Japan, Sendai; (Uzen, Ugo, Rikuchu, Mutsu) III
Japan, Kioto I O.
Austria, Croatia, Karlstadt I F.
1646
            June
            Dec. 21
1646
1646
1647
                             Chile, Santiago, Concepcion, felt from Poz de Maule to
            May 13
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Chuapa III P., H.J. & Mon.

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A.D.
1647
                             Japan, Tokio; (Sagami)
                                                                H
                                                                       Mi.
            June 15
                             Austria, Dalmatia, Zeng I
Armenia, Van III M. & O.
Japan, Hakone, Tokio, Kioto
1648
                                                                     M.
            April 2
1648
                                                                       \mathbf{III}
1648
            June 13
                             Philippines, Central Luzon II
                                                                         S.M.
1648
                             Italy, Messina and felt at Reggio
1649
            January
                            Japan (Yamashiro, Aki, Iyo) III
Japan, Tokio, Nikko III Mi.
Japan, Tokio II O.
China, Pekin I Pa.
\bar{1}649
            Mar. 17
July 29
1649
            Sept. 1
Nov. 10
Jan. 26
1649
1649
                             China (Fukien), Lungyen circuit III Ho.
1650
          Beginning
1650
           of March
                             Greece, Island of Santorin
                             Peru, Cuzco, Lima III H.J.
1650
            Mar. 31
            April 23
1650
                             Japan (Sagami, Musashi, Awa, Kadsusa, Shimosa, Hitachi,
                                     Kotsuke, Shimotsuke)
                                                                          Mi.
                             Bolivia, La Plaz II Mon.
China (Fukien), Yenping Fu, Tingchou Fu, Shaowu Fu
1650
           Nov. 4-10
1651
            Jan. 14
                                    ПÌІ
                                           Ho.
1651
                             England (Cumberland and Westmoreland)
                                                                                       T
                                                                                            M. & W.
                             Peru and Chile III P.
1651
                            China, Pekin I Pa.
China, Pekin I Pa.
China (Anhui), Ssuchou, Taihu in Anching Fu, Chihchou
Fu II Ho.
China (Kiangsi), Jaochou Fu; (Hupch), Hayang Fu,
Hsiangyang Fu I Ho.
China (Anhui), Luchou Fu; (Kiangsi), Hukou in Chiu-
chiang Fu, Nanan Fu I Ho.
China (Shensi), Luchyang in Hanchung Fu, Yenan Fu
            Feb. 18
1652
            Mar. 23
1652
1652
        Mar. to April
1652
        April to May
1653
                                    III Ho.
1653
            May
                             Philippines, Manila and neighbouring provinces
                                                                                                     S.M.
1653
            Sept. 27
                             Italy, Cesena, Faenza in (Emilia)
                                                                           I
                            Asia Minor, Smyrna; 2,000 to 3,000 killed III M.
China (Anhui), Chihchou Fu, Tungliu, Luchiang in Luchou
Fu II Ho.
1653
        Feb. 7 to 21
1654
                             China (Shensi), Hsian Fu, Hanchung Fu III Ho.
China (Shensi), Hsian Fu, Yenan Fu, Hanchung Fu, Fengh
          June 20-22
1654
1654
          July 21 to
             August
                                     siang Fu; (Kansu), Pingliang Fu II
1654
                             China (Kuangtung), Shunte, Hsiangshan,
Hsinhui in Kuangchou Fu II Ho.
          July-Aug.
                                                                                           Tsengcheng,
                             Italy, Sora, Arpino, Casalvieri and other towns in the Terra
1654
            July 23
                                    di Lavoro
                                                    III
                                                           В.
            Sept. 8
Jan. 21
Mar. 25
1654
                             Italy, Atella in (Basilicata)
                                                                     H
                                                                         В.
1655
                             Formosa, Tainan III II.
1655
                             Italy, Rocca S. Casciano in (Florence)
                            China (Shantung), Yenchou Fu, Tsaochou Fu
Peru, Lima III H.J. M. gives I
Syria, Tripoli II M.
1655
            Sept. 4
1655
            Nov. 13
1656
1656
            Oct. 17
Feb. 15
                             Italy, S. Severo in (Foggia) I
                                                                         В.
                             France, St. Maure, not far from Tours and the environs for six miles round II M.
1657
1657
            Mar. 15
                             Chile, Santiago, Concepcion; with sea waves
                                                                                            III Mon.
1657
            Mar. 16
                             Iceland, South and Westland, Floi, Fliotshlid
                                                                                                     Th.
                                                                                              \mathbf{III}
                             China (Ssuchuan), Paoning Fu II F
Greece, Island of Cephalonia II M.
1657
            May
1658
                             China (Chihli), Hsincheng in Paoting Fu, Yichou, Nanpi,
Yenshan in Tiensing Fu II IIo.
1658
            Feb.
                     3
1658
            Feb. 14
                             Peru, Trujillo
                                                 III
                                                         H.J.
1658
           Feb.-Mar.
                             Malta
                                       I
                                           В.
                             China (Kiangsu), Tungtai in Yangchou Fu II Ho. 9hr. 0m. G.M.T. Philippines, S. Luzon, Manila and neighbouring provinces III S.M.
1658
            May 5-15
            Aug. 20
1658
1658
            Sept. 20
                             China (Kiangsu), Hsinyang in Suchou Fu, Chihchou Fu,
Shanghai, Taitsangchou II Ho.
                             Japan (Shimotsuke, Mutsu) III
Italy, Catanzaro in (Calabria) II
Turkey, Constantinople II M.
1659
             April 21
1659 -
            Nov. 10
                                                                       III
1659
1659
            Dec. 25
                             China (Fukien), Yenping Fu, Ninghua in Tingchou Fu
                                     Ho,
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A.D.
1660
                            Italy, Modena I B.
                            Greece, Cephalonia I P.
 1660
 1660
            June 8
                             China (Honan), Nanyang Fu
                                                                   III
                             Formosa, Tainan III
 1660
                                                            Η.
                             Switzerland, throughout the Canton of Glarus I
 1661
          Jan. 8 or 9
                            Formosa; the sea was violently agitated Italy, Bergamo in (Lombardy) II B.
 1661
          Jan. S or 9
 1661
            Mar. 12
                             Italy, Galeata, Rocca S. Casciano, S. Sofia and other towns
1661
            Mar. 22
                                    in Romagna III B.
                             Italy, Otranto in (Lecce) II
1661
            July
                                                                    В.
1661
            Aug. 4
Dec. 10
                            Japan (Higo) I
                                                    0.
1661
                            Japan (Tosa)
                                               HO.
                             U.S.A., New England
1662
            Jan. 26
                                                          I M.
                            Japan, Kioto (Yamashiro, Kawachi, Settsu)
                                                                                        II
1662
            May 12
                                                                                              Mi.
            June 16
Oct. 30
Nov. 23
                            Japan, Kioto; (Omi, Hizen, Shinano) III
Japan (Hyuga, Osumi) III Mi.
1662
1662
1662
                             Ecuador, Quito III
                             Crete I
                                         P.
1662
                            Canada, St. Lawrence Valley, Quebec, Sillery, Tadoussac
1663
                     5
            Jan.
                            I M. & O.D.
U.S.A., New England States, 3 violent shocks I
China (Hupeh), Anlu Fu III Ho.
            Feb.
1663
                    5
1663
           Mar. 4-13
                            Iceland, Reykjanes peninsula; many farms abandoned II Th.
1663
                            Japan, Yezo, Matsumai III Mi.
Japan, Kioto II Mi.
Persia, Tabriz and the country round
1663
            Aug. 27
1664
            Jan.
1664
1664
            Mar. 24
                            Greece, Zante I
                                                     P.
1664
           May 12
Aug. 3
                            Peru, Íca II
                                                H.J.
                            Japan (Kii) III O.
1664
                            Japan, Torishima (Loochoo)
1664
                                                                   III O. Same as above?
1664
                            India, near Dacca I
Island of Candia II
                                                     I Ol.
1665
            January
                            China (Honan), Chiachou; (Chihli), Shuntien Fu, Paoting
1665
           April-May
                                   Fu, Chichou II Ho.
1665
                            Japan, Tokio I O.
            June 12
1665
            June 19
                            Philippines, S. Luzon, Manila and neighbouring provinces II S.M.
                            Japan, Kioto
1665
            June 25
                                               III O.
            Jan. 19
Feb. 11
1666
                            England, Coventry
                            Japan (Echigo), Takata II Mi.
Italy, Bologna I B.
Assyria, Mensal, Mosul? and the country round, five towns
1666
            April 14
1666
1666
            Nov.
                            and 45 villages ruined III M. West Indies, Jamaica II P.
1667
                           Taly, Spoleto in (Perugia) and other towns I Italy, Spoleto in (Perugia) and other towns I China (Kiangsu), Suchou Fu, Taitsangchou I Austria, Ragusa, Dalmatia I B. Mexico, Mexico, Mexico, City; (Puebla) I O.B. Caucasia, Shemaka; 80,000 persons perished III India, Samawani or Samaji, Delta of Indus III China (Honan), Shanacheni in Kuangchou III
1667
1667
            Jan.
            April 6
1667
1667
            Jûly 30
                                                                                        III
1667
                                                                                               M. .
            Nov.
            May
1668
                                                                                              Ol.
                            China (Honan), Shangcheng in Kuangchou
China (Chihli), Shuntien Fu I Ho.
1668
                                                                                    III
           June
                                                                                            Ho.
1668
          June 14-18
           July 3 to
                            Asia Minor, Angora, Caesarea (Kaisarije), Coniyeh I
1668
                                                                                                    M.
           Sept. 13
                            All Eastern China (Shantung)
1668
                                                                   III Ho.
       July 4 to Aug.
                           Austria, Neustadt I M.
Japan, Sendai III O.
West Indies, St. Christopher I M.
1668
           Aug. 27
Aug. 28
1668
1668
1669
                            Caucasia, Shemaka and Lajka
                                                                    III
                                                                           M. & O.
           January
1669
                            Italy, Nicolosi in (Catania) II
                                                                     в.
           Mar. 11
1669
                            Upper India, near Fort Mandraian
           June
                   4
                           India, Cashmir I Ol
India, Atock II Ol.
Japan, Tokio I O.
           June 22
1669
                                                    O1.
1669
           June 23
1669
           Sept. 6
Jan. 17
                           Italy, Hall and Innsbruck in the Tyrol, and the adjacent country, south to Venice, north to Wildungen, Augsburg, Donauworth, and Nuremberg, west to the
1670
                                   Lake of Constance and the Canton of Glarus II M.
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Caucasia, Shemaka II M. & O.

1670

Jan. 22

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A.D
          July 21
                        Japan (Sagami) III O.
1670
                                              III
          Sept. 28
                        Japan (Tsushima)
                                                и м. & o.
1670
                        Caucasia, Shemaka
1670
                                                      M. & O.
1670
       Dec. 22 & 23
                        Caucasia, Shemaka II
Caucasia, Shemaka II
                                                    M.
1671
          Jan.
                 1
          Feb.
                        Caucasia, Shemaka
1671
                                                H
                                                    M.
          June 20
                        Italy, Modena, Reggio in (Emilia), Verona
                                                                           III
1671
                        Iceland, Grimsnes and Olfus; many houses fell III
                                                                                      Th.
1671
          Summer
                        Caucasia, Shemaka II M. China (Shantung), Yenchou Fu, Yichou Fu, Anchiu in
1671
          Aug. 8
       Sept. to Oct.
1671
                               Chingchou Fu; (Kiangsu), Hsiao in Hsuchou Fu
                               Ho.
                               , Rimini, Castelnuovo, Fano and other towns in the (Marches) III B.
1672
          April 14
                        Italy,
                         Italy, Amatrice, Montereale in (Aquila)
1672
           June
                                                                       H
1672
         Oct. 10-12
                         China (Kiangsu), Paoshan, Ciating in Taitsangchou, Su-
                               chou Fu I
                                             Ho.
                         China (Fukien), Lienchiang in Fuchou Fu
1672
          Dec.
                  5
                                                                          III
1672
                        Most of the Grecian Islands, especially Santorin & Stanichio
                         Persia in (Khorasan), Meshed, Nishapur
1673
           Aug.
           Oct.
                         China (Chihli), Huaian in Hsuanhua Fu
1673
                                                                        III Ho.
                         China (Chihli), Shuntien Fu, Yichou, Yungping Fu
1673
           Oct.
                18
                               Ilo.
                         Philippines, S. Luzon (Mindoro, Batangas), Taal, Calapan
II S.M.
1675
           Feb.
                         West Indies, Cuba, Santiago
1675
           Feb. 11
                                                           III O.D.
                         Italy, Ivrea (Piedmont)
           June 17
1676
                         Japan (Iwami) III O.
China (Chihli), Pekin, Tungchou, comprising Tung, Tsunhua and Yungping III H.
 1676
           July 12
 1676
           July
                         West Indies, Jamaica, Port Royal
                                                                 11
 1677
                         Japan, Tsugaru, Nambu III O.
China (Honan), Yushih, Weichuan in Kaifeng Fu; (Shan-
 1677
           April 13
 1678
           April 5
                         si), Tungliu, Luan Fu I
France, Blois I M
                         France, Blois I M. Ho.

France, Blois I M. China (Kiangsu), Taitsangchou, Sungchiang Fu Japan, Tokio I O.
           April 22
 1678
           May 24
 1678
                                                                                     Ho.
 1678
           Oct.
           Feb. 11
                          West Indies, Cuba, Santiago II O.D.
 1679
         June 4 to 12
                         Caucasia, the fort of Erivan and all the country round, to
 1679
                                the Ararat chain
                                                    III M., M. & O.
                          China (Shensi), Yenan Fu; (Honan, Chihli)
China, Pekin; (Shantung, Honan, Kiangsu)
        Aug. to Sept.
 1679
 1679
         Sept. 2 to 7
                                                                             \Pi\Pi
 1679
           Oct.
                         Throughout the whole of Spain, principally in the kingdom
                                of (Grenada), Malaga II
                                                              Μ.
           Jan. 27
Mar. 10
                         Switzerland, Canton of (Glarus) and Appenzel
 1681
                                                                                    Μ.
 1681
                         Chile, Arica I
                                            Mon.
 1682
                          West Indies, Santiago de Cuba I
                          Mexico, Mexico City and Oaxaea
                                                                II 0.B.
 1682
            Mar. 19
                          France, throughout the whole of Savoy, Provence, Alsace,
 1682
           May
                  2
                                Burgundy, and as far north as Paris, and in Thuringia
                                in Germany, Switzerland, Bâle, Neuchâtel, Genera, and Glarus I M.
                                and Glarus
                          Austria, Styria, Mariazell I Ra.
Japan, Nikko I O.
Japan, Tokio; Nikko (Shimotsuke)
 1683
        Whit-Monday
 1683
            May
 1683
            June 18
            Aug. 24
Oct. 20
Nov. 22
                          Philippines, Manila II
 1683
                                                      S.M.
                          Japan, Nikko, Tokio II. Mi.
China (Honan), Yushih in Kaifeng Fu; (Chihli), Kuang-
chang in Yichou, Tungkuang in Hochien Fu I Ho.
 1683
 1683
                          Caucasia, Erivan and on the frontiers of Persia and Turkey
 1683
            Nov. 27
                                1
                                   M.
                          Different parts of Switzerland, especially in the Haut-Valais, and perhaps at Lausanne and Bâle I M.
 1684
            Feb. 26
  1685
            Oct.
                          Japan (Suwo, Nagato)
Formosa III Ho.
                                                    <sup>-</sup> II O.
            May 12
  1686
  1686
            June 10
                          Formosa
                                      I. H.
                          Chile, with sea waves III I
  1686
            Oct.
  1686
                                                         P.
  1687
                          Philippines, Manila and neighbouring provinces I
                                                                                       S.M.
            Feb.
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A.D. 1687	Amuil	Persia, the town of Machat on the borders of India was
	April	ruined II M. Makat is in Chinese Turkestan.
$1687 \\ 1687$	April 25-26 Oct. 2	Italy, Amalfi in (Salerno) I B. Italy, Tropea in (Catanzaro) II B.
1687	Oct. 20	Peru, Lima, <i>Callao</i> , and an immense district along the sea coast of Peru; sea waves. III M. Mon. gives Oct. 21.
1688		West Indies, Jamaica, Port Royal II O.D.
1688 1688	January Mar. 1	Italy, Pisticei in (Basilicata) II B. West Indies, Jamaica, Port Royal II M. M.H. gives Feb. 19.
1688	April 11	Italy, Cotignola, Bagnacavallo and other towns in Romagna III B.
1688 1688	May 31-June 1 June 5	
1688	July 10	Asia Minor, Smyrna; 15,000 to 20,000 killed III M.
1688	July 12	Chile, Santiago I Mon.
1688	July 23	Italy, S. Severo, Torremaggiore and elsewhere in Apulia and Calabria I B.
1688	Oct. 4	China (Yunnan), Hohking and Kienchuan III Pa.
1689	0 1 01	England, Lyme Regis (Dorset) I R.
1689 1690	Sept. 21 April	Italy, Bari and neighbourhood I B. West Indies, Antigua, Barbadoes, St. Christopher III O.D. & P.
1690	July 9	Chile, Santiago I Mon.
1690	Dec. 4	Italy (Venetia, Istria); Laibach and Villach in Austria II B. & Ra.
1690	Dec. 22-23	Italy, Ancona, Sirdo and other places in the neighbourhood II B.
1691	_	West Indies, Hayti, the town of Azua in St. Domingo II M.
1692	June 7	West Indies, Jamaica, Port Royal, 3,000 persons perished
$\begin{array}{c c} 1692 \\ 1692 \\ 1692 \end{array}$	Sept. 13 Oct. 24	Argentina, Tucuman, Esteco I Mon. Italy, Fano in (Marches) II B. England, London I M. & W.
1693	Jan. 11	Italy (Catania), and other towns in the province and in (Syracuse) III B.
1693	Feb. 13	Iceland, Southlandunderland, also eruption of Hecla I Th.
1693	June 11	Malta III O.D.
$1693 \\ 1693$	July 6	Italy, Manlova, Goito, Ferrara, Venice II B. West Indies, Cuba, Havana; 1,500 houses thrown down III M.
1694	April 8	Italy, S. Sepolcro in (Arezzo) I B.
1694	June 19	Japan (Ugo), Aikta III Mi.
$1694 \\ 1695$	Sept. 8 Feb. 25	Italy (Avellino and Basilicata) III B. Italy, Asolo in (Treviso) and elsewhere in (Venetia, Lombardy and Emilia) II B.
1695	May	Japan, Higo II O.
1695	May-June	China (Shensi, Kansu, Shansi, Chihli) II Ho.
$1695 \\ 1695$	May 18 June 11	Japan, Higo II O. China (Shensi, Kansu, Shansi, Chihli) II Ho. China (Shensi, Honan, Hupeh) II Ho. Italy, Bagnorea and neighbouring towns (Latium) III B.
1696 1696	June-July Aug. 23	China (Yunnan), Linan Fu I Ho. Mexico, Oaxaca; Orizaba in (Vera Cruz) and generally in the E. and S. III O.B.
1696 1697	AugSept.	China (Yunnan), Yunnan Fu I Ho. Italy, Naples, in consequence of an eruption of Vesuvius I B.
$\begin{array}{c} 1697 \\ 1697 \\ 1697 \end{array}$	Feb. 25-26 Feb. to Mar. Mar. 24	Mexico, Acapulco, San Marcos III Bo. & O.B. China (Anhui), Luchou I Ho.
1697	June 18	Mexico, Acapulco III M. Italy, Florence I B.
1697	S.ptDec.	Italy, Siena I B.
1697	Nov. 25	Japan, Kamakura II O.
1698	Jan. 18-20	China (Shantung), Fushan in Tengchou Fu I Ho.
1698	April 12	Italy, Vizzini, Militello in (Catania) and Palermo II B.

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A.D.
1698
          June 19
                         Ecuador, the Andes about Quito, Ambato, Riobamba and
                               Latacunga II
Lima I H.J.
                                                 M. R. & S. give III.
1699
          July 14
                         Peru, Lima I
          Sept. 23
                                        III O.
1699
                         Japan (Kii)
1699
          Sept. 24?
                         Philippines, Manila
                                                 II S.M.
1700
                                               T
                                                   Pa.
          Mar. 16
                         China (Kueichou)
1700
           April 16
                         Japan (Tsuhima) II O.
China (Hupeh), Chishui, Kuangchi in Huangchou Fu I
1700
          May 4
                               Ho.
1700
        June or July
                         Siberia, Nerchinsk
                                                   M. & O.
                         Italy, Emenonzo, S. Stefano di Piano in (Udine)
1700
          July 28
Dec. 21
                                                                                        В.
                         Mexico, Oaxaca Town and Mexico II O.B.
1701
1702
          Mar. 14
                         Italy, Benevento, Aprice, Ariano and surrounding towns III B.
                         West Indies, Martinique
1702
          Sept.
                                                      II M.
1703 Jan. 14-Feb. 2
                         Italy, Norcia in (Perugia), Aquila in (Abruzzi), other
towns in these departments and in the (Marches)
                               HI B.
1703
          January
                         Italy, Montebello in (Verona) I
                                                                В.
                         Ecuador, Latacunga III R.S.
Mexico, Mexico City I O.B.
Japan (Musashi), Tokio; (Sagami), Odawara; (Awa,
1703
1703
           Nov. 24
          Dec. 30
1703
                               Kazusa, Shimosa, Hitachi, Kotsuke, Shimotsuke,
                               Mutsu) III Mi.
1704
                         England, Lincoln
                                                   M. & W.
                                               1
                         Grecian Archipelago, Island of Santa Maura I M.
1704
        Nov. 10-Jan.
1705
          Nov. 2
                         China (Chihli), Miyun in Shuntien Fu I
                                                                          Ho.
                         Peru, Arquipa, Arica; sea waves. II M.
China (Fukien), Fuchou Fu, Hsinghua Fu I Ho.
Iceland, Olfus, Floi and Faxaftoi area; many farms fell
          Nov. 26
1705
         Nov.-Dec.
.1705
1706
          April 20
                                            Also Jan. 28, March and April 1.
(Loochoo) 1 Mi.
                                     Th.
                               III
                         Japan, Tokio; (Loochoo)
1706
           Oct. 21
                         Italy, Campobasso, Manopello in (Abruzzi)
          Nov.
1706
                 -3
          Mar. 24
1707
                         Italy, Acquasparta and neighbourhood in Perugia
                                                                                         В.
        Sept.-Oct.
                         China (Yunnan), Lufeng in Yunnan Fu, Yunchou in
1707
                               Shunning Fu I Ho.
1707
          Oct. 28
                         Japan, Tokaido, Kiushu, Shikoku, Chugoku; (Tosa), with
                               sea waves III Mi.
1707
          Dec. 16
                         Japan, Osaka; (Kii, Mikawa, Totomi, Ise, Suruga)
                                                                                         III
                               Ò.
1707
                         Salvador, San Salvador III
                                                           Mon.
                         Japan (Mimasaka, Inaba, Hoki) II O.
China (Shensi), Chengku in Hanchung Fu; (Kansu),
Hsining Fu; (Honan), Chungmou in Kaifeng Fu;
(Chihli), Chulu in Shuntien Fu II Ho.
1709
          Mar. 11
1709
         Oct. 14-15
1710
         May 16-17
                         Greece, Zante I P.
                         Italy, Reggio in (Calabria, Messina) I B.
China (Fukien), Yuchi, Yenping, Sha in Yenping Fu
1711
        Jan. to Feb.
          June 26
1711
                                                                                           Ι
                         Ho.
Mexico, Mexico City, Tlaxcala, Colima, Guadalajara in
1711
          Aug. 16
                                          Oaxaca, Puebla and east and south of
                               Jalisco,
                               country
                                          HI
                                                0.B.
1711
          Aug. 31
                         China (Fukien), Changehou, Changpu, Nanching, Changtai,
          to Sept.
                               Pingho, etc., in Changchou Fu and Chuanchou Fu
                               II Ho.
1711
        Oct. to Nov.
                         Formosa, Taihoku I
                                                    н.
1712
          April 10
                         Austria, in and around Vienna, especially at Neustadt I
                               Μ.
1712
                         Italy, Rome
                                             В.
1712
                         Italy, Campobasso, Naples and Benevento
          May
1712
          July 16
Jan. 3-6
                         Italy, Bruzzano, Stilo in (Calabria) I B.
                         Haly, Massafra in (Lecce) and Bari I B.
China (Yunnan), Yunnan Fu, Linan Fu, Chuhsiung Fu,
Kuanghsichou, Chuching Fu II Ho.
China (Ssuchuan), Mou II Pa.
Italy, Narni in (Perugia) II B.
1713
1713
        Feb. to Mar.
1713
           Aug. 25
1714
1714
           Jan. 13
                         Belgium, Brabant, Hainhault, Liège, also at Brussels and Maestricht II M.
1714
           April 28
                         Japan (Shinano) II
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		· ·
A.D.		
1714	May 5	Mexico, Cordoba and Orizaba in Vera Cruz, Oaxaca III
1714	Tudac 97	O.B. Greece, Patras II M.
1714	July 27 Aug.	Italy, Salerno II B.
1714	Aug. 28	Greece, Cephalonia III P.
1714	Sept. 3	Greece, in the Morea, Patras I M.
1715	Aug. 22	Peru, Moquegua I Mon.
1715	Oct.	Formosa I H.
1716	Feb. 3	Algiers II M.
1716	Feb. 6	Peru, Moquegua, Torata I H.J.
1716	Feb. 6	Peru, Moquegua, Torata I H.J. Mexico, Coast of Lower Califorina III O.B.
1716	Feb. 21	Italy, Castroreale in (Messina), and elsewhere in (Catania)
		II B.
1716	May-June	Algiers, 20,000 perished; also felt at Catania and Syracuse III M.
1716	Sept. 24	
1110	Бери дт	Philippines, S. Luzon (Rizal, Laguna, Cavite and Batangas), <i>Taal</i> II S.M.
1716		Central Asia, through the whole of the district Sungaria,
		45°N. 88°E., between the lakes Balkash and Zaisang
		48°N. 84°E., Aksu III M.
1717	Feb. 13	Japan (Hyuga) Í O.
1717	April 4	Italy, Vittoria in (Syracuse) I B.
1717	April 22	Italy, Castroreale and other towns in Messina II B.
1717	Aug. 5	Algiers I M.
1717		Asia Minor, Caesarea I M.
1718		West Indies, Martinique, also at St. Vincent I P.
1718	Feb. 20	Italy, Sicily (Syracuse and Catania) I B.
1718	Mar. 10	Italy, Noto in Syracuse II B.
1718	May-June	China (Kansu), Tungwei in Kungchang Fu I Ho.
1718	June 10	China (Shensi), Fenghsiang Fu; (Kansu), Li, Chinan in
		Chinchou Circuit II Ho. M. & O. give June 8,
1710	June 15-16	Shensi and Shansi
1718	June 15-10	Austria, Neustadt, near Vienna and the neighbourhood II M.
1718	Aug. 3	China (Kansu), Pingliang and Kungchang III Pa. The
1.10	1148. 0	date is that of a notification, see June 10.
1718	Aug. 22	Japan (Yamashiro, Shinano, Totomi, Mikawa) III O.
1718	Dec. 10	Island of Cyprus; the capital destroyed III M.
1719	Jan 7	Italy Friuli in (Ildina) I R
1719	Mar. 6	Turkey, Constantinople, also at Villanova in (Algarbia),
1510	35- 0	Portugal II M. Asia Minor, Smyrna and Aleppo; 200 houses ruined II
1719	Mar. 6	M. Asia Minor, Smyrna and Ateppo; 200 houses ruined 11
1719	Mar. 6	Salvador, San Salvador III Mon.
1719	May 25	Turkey, Constantinople and in Anatolia, between Scutari
	•	and He des Princes, town of Sevenit or Ismid and
		at Nicomedia III M.
1719	June to Aug.	China (Chihli), Hsuan Fu, Shuntien Fu and Tiensen II
		Ho.
1719	July	Northern China III M. & O. See above. Italy, Norcia in (Perugia) and neighbouring towns II B
1719	June 27	7, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
1719	July	Morocco, Morocco, along the coast of Fez II M. Peru, Guamanga II M.
$\frac{1720}{1720}$	April	China (Chihli) Vanahina in Hananhua En I Ha
$\begin{array}{c} 1720 \\ 1720 \end{array}$	June 11-12 June to July	China (Chihli), Yenching in Hsuanhua Fu I Ho. China (Kiangsu), Chenchiang Fu, Sungchiang Fu I Ho.
$1720 \\ 1720$	July 15	China (Kiangsu), Chenchiang Fu, Sungchiang Fu I Ho. India, Delhi III Ol.
1720	July 11-13	China (Chihli), Huaijai, Huaijau, Miyun, Tungan in Shun-
1120	July 11-10	tien Fu, Paoting Fu, Yuchou in Hsuanhua Fu III
		Ho.
1720	July to Aug.	China (Shantung), Chinan Fu; (Chihli), Tiensin, Hsuanhua
		Fu II Ho.
1720	Aug. 27-28	Italy, Montecassino and Atina in (Caserta) II B.
1720	Sept. 12	Italy, Gerace in (Calabria) II B.
1720	Nov. 1	Formosa, Tainan III II.
1721	Jan. 5	Formosa, Taman III H.
1721	Mar. 24	Island of Majorca, R. Selva I M.
1721	April 26	Persia, Tabriz, 8,000 lives lost III M.
1721	July 3	Throughout the whole of Switzerland, especially in the
		Canton of (Bâle), at Wallenbuch, Porrentrui, Muhlhau-
		sen, in the Canton of (Berne) along the Aar, Lucerne, Zurich and Strasburg I M.
		- arron and votinovara 1 111

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A.D.
    1722
                                                                              Ho.
                            China (Yunnan), Yunnan Fu, Linan Fu
             Feb.-Mar.
    1722
                            China (Honan), Kaifeng Fu, Huaiching Fu
                                                                                  Ho.
              May 3
    1722
              May 24
                                              I M., Mon. & P.
                            Chile, Santiago
              Nov. 29
Dec. 27
    17\overline{22}
                            Algiers I
                                         M.
                            Portugal, Villanova and all the south coast from Cape St.
    1722
                                  Vincent; the sea was agitated; Albufeira, Loule, Silves, Faro, Tavira, H. M.
                            Formosa, Hozanken I H.
    1722
    1723
              Feb. 20
                                                    T
                                                        O.D.
                            Costa Rica, Cartago
              Dec. 17
    1723
                            Japan, Kiushu II Mi.
                            Italy, Roccamonfina in (Caserta) I B.
Iceland, Myvatnssveit (Northland); eruption at Myvatn
II? Th.
             June-July
    1723
              May 17
    1724
                            Chile, Santiago
                            Chile, Santiago I Mon.
Iceland, Arnessysla (Southland), Krisuvik in the Faxafloi
    1724
              May 24
    1724
              Aug.
                                  and also Reykjanesskaga II
                                                                     Th.
                            Italy, Reggio (Calabria) I B.
Portugal, Lisbon I M.
              Sept. 3
    1724
    1724
              Oct. 12
                            China (Yunnan), Yunnan Fu, Chuching Fu, Chengchiang Fu II Ho.
    1724
              Dec.
                            Italy, Travali, Monte Ingegnoli and Fosini (Siena)
    1724
              Dec. 11
                                  В.
                            Peru (Ancachs), Lima, Arequipa III P. & Mon.
                                                                                        H.J.
    1725
              Jan.
                                  gives Jan. 6.
                            Siberia, Chita in Transbaikalia and west to River Selenga
    1725
              Jan. 21
                                     M. & O.
    1725
              Mar. 27
                            Peru (Arequipa), Camana II H.J.
                            Iceland (Southland), Arnes and Rangarsysla, with eruption of Hecla III Th.
    1725
             April 1 & 2
                            Modigliano, Faenza, Brisighella and other towns in
   1725
              Oct. 28?
                            Japan, Nagasaki III Mi.
Peru, Lima, Arequipa III
    1725
              Oct. 30
                            Peru, Lima, Arequipa
    1725
              Jan.
                     8
                                                            Mon.
                            Japan, Echizen II O.
    1726
              Mar. 19
              April 9
                            Italy, Monte Olivetto (Siena) I
    1726
    1726
                            Turkey in Asia, Aleppo, also at Alexandria
                                                                             I M.
              April 15
    1726
              July 20
                            China (Hupeh), Changyang, Yichang in Yichang Fu
                                  Ho.
    1726
                            Iceland, Southland, Rangarvellir, also cruption in the
              Summer
                                  Eastern Jokulls; two farms fell II Th.
                            Italy, Palermo, Marsala and Mazzara
Italy, Trapani in Sicily II B.
Italy, Noto (Syracuse) I B.
    1726
              Sept. 1
                                                                            в.
              Sept. 26
    1726
    1727
              Jan. 5-7
                            Mexico, Oaxaca town II
    1727
           Mar. 10 & 18
                                                           0.B.
             May 12
    1727
                            Germany, Frankfort on the Main
                                                                   I M.
    1727
             May-Oct.
                            Italy, Sciacca in Girgenti I B.
  1727
             Nov. 7-27
                            West Indies, Martinique II
                                                              M. & P.
    1727
              Nov. 8
                            United States America, Newbury (Massachussetts) I
                                  \widetilde{\mathbf{F}}.\widetilde{\mathbf{R}}.
                            Persia, Tabriz, 77,000 people perished III M.
Italy, Monastery of St. Michael (Urbino) I B.
    1727
              Nov 18
    1727
              Dec. 15
    1728
              Feb.
                     8
                            Italy, Roccamonfina in (Caserta)
                                                                      B.
              April 18
    1728
                            Iceland, Myvatn I Th.
    1728
              Nov. 28
Jan. 13
                            Philippines, S. Luzon, especially at Manila
                                                                              III
                                                                                   S.M.
                            A great part of Swilzerland, especially at (Berne), lakes of Thun and Brienz, at Interlachen, Spiez, Zurich,
    1729
                                  Frulingen, Rettingen, Constance, Bâle, Lausanne, Geneva, Vevey and throughout the Canton du
                                  Geneva,
                                              M.
    1729
            June 28-29
                            Italy, Patti, Millazzo, Castroreale in Messina I B.
             July 9 or
    1729
              June 28
                            Greek Calendar. Greece, Zante II P.
    1729
              Aug.
                      1
                            Japan (Noto, Sado) II
Japan (Tsushima) II
                                                         0.
              Mar. 12
Mar. 28
    1730
                                                       0.
    1730
                            Italy, Massa in (Carrara) II B.
Italy, Norcia and environs in (Perugia)
              May 12
    1730
                                                                          \Pi
                            Italy, San Ginesio (Macerata)
    1730
                                                              I B.
              June
    1730
              July 8-9
                            Chile, Concepcion, Santiago, with sea waves P. & Mon.
                                                                                   III
                                                                                         M.,
1730
                            Philippines, S. Luzon (Laguna and Tayabas) III S.M.
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A.D.
                           Formosa, Tamsui, Kagi, Shoka I H.
China (Chihli), Pekin, Paoting Fu, Yungping Fu, Hochien
Fu, Tiensin III H.
1730
           Sept. 21
       Sept. 29 & 30
1730
                           China (Chihli), Chengting Fu, Chichou, Hsuanhua Fu; (Shangtung), Chinan Fu, Chingchou Fu II Ho.
1730
         Sept.-Oct.
1731
           Mar. 20
                            Italy, Foggia (Apulia) II
Japan (Matsu) II O.
                                                              В.
1731
        Oct. 7
Nov. 7 & 15
                           Mexico, Mexico City I O.B.
Italy, Mountains of (Pistoia) II B.
1731
         End of year
Oct. 22
1731
                           China (Fukien), Hsinghua Fu, Changchou Fu I Ho.
1731
         Oct. to Nov.
                           China (Kiangsu), Huchou Fu, Yangchou Fu, Tungchou,
1731
                           Haichou II Ho.
Spain, Seville I M.
China (Yunnan), Yunnan Fu, Tungchuan Fu; (Ssuchuan),
Ninguan Fu II Ho.
1732
           Jan. 10
           Jan. 29
1732
                                                    0.
           Jan. 29
                            Japan (Tokio) I O
Italy, Parma I B.
1732
           Feb.
                            Italy, Parma
1732
                   4
           Feb. 25
1732
                            Mexico, Acapulco; extraordinary flux and reflux of the
                                  sea II M.
                            Italy, Milazzo, Castroreale (Messina)
1732
           Mar. 28
                            Italy, Imola, Forli, Faenza in (Emilia) I B.
           Aug. 9-10
1732
                           Canada, Montreal, also at Boston (Pennsylvania) and at
Annapolis (Maryland) I M.
           Sept. 5
1732
                           Iceland, Rangarvellir and Eystrihreppr II Th.
Noon, U.S.A., Newbury, Massachusetts; felt at Boston,
Montreal II F.R.
1732
           Sept. 7
           Sept. 15
1732
                            Italy, Ariano and other towns in (Avellino) III B.
1732
           Nov. 29
                           Italy, Calabritto (Avellino) I B.
China (Yunnan), Tungchuan Fu, Chanyi in Chuching Fu
           Jan. 29
1733
1733
        July-Aug.
                                      Ho.
1734
            Aug.
                            Ireland
                                      \mathbf{II}
                            Iceland, Arnessysla, Floi; 60-70 farms fell
Bolivia, Mision de Tarija in el Chaco? I
Mexico, throughout the country III O.B.
           Mar. 21
1734
                                                                                     \mathbf{II}
                                                                                   Mon.
1734
1734
           Aug. 17
                            Colombia, Popayan III R.S.
1735
           Feb. 2
May 30
                           Mexico, throughout the country III O.B. China (Chehkiang), Tunghsiang in Chiahsing Fu, Huchou
1735
1735
           Sept. 6
                                   Fu I Ho.
                           Italy, Monteleone, Pizzo (Catanzaro)
Formosa, Tainan, Kagi, Shoka III
Scotland, Ochil Hills I? M.
1735
           Sept. 6
                                                                             1
            Jan. 27
1736
                                                                             н.
1736
           May
                            Switzerland, throughout the whole country round, Bâle
1736
           June 12
                                      M.
                                   T
                            Italy, Ciminna, Naso (Messina) II B. Ecuador, Quito III R.S.
1736
            Aug. 16
1736
            Dec.
                    5
            Dec. 25
                            China (Shantung), Huang, Hushan, Wenteng in Tengchou
1736
                                   Fu I Ho.
                            Swabia, Carlswich, Carlsruhe?
1737
           May 14
         End of May
1737
                            Turkey, Constantinople I M.
           June 11
                            Italy, San Casciano in Florence
1737
         Sept. 23 to
                           Siberia, Nizhne-Kamtchatka II M. & O.
Siberia, Kamtchatka and Kuriles, around Avacha III
M. & O.
            Oct. 23
1737
1737
            Oct.
                    6
1737
            Oct. 11
                            India, Calcutta; 300,000 lives lost III
                                                                                  01.
                            France (Vaucluse), Carpentras I M. Siberia, Kamtchatka and the Kuriles
1737
            Oct. 18
1737
                    6
            Dec.
                                                                              \Pi
                                                                                   M. & O.
                            U.S.A., New York; felt in Boston and other places I F.R.
1737
            Dec. 17
                            Chile, ruin of Valdivia III?
1737
            Dec. 24
                                                                     Mon.
1738
            Aug.?
                            Italy, Bagnorea (Latium) II
                            Italy, Catania, Noto and Syracuse
Italy, Parma, Mirandola, Verona
1738
            Aug. 16
            Nov. 5-6
1738
                                                                              в.
                            China (Shensi), Hsian Fu I Ho.
Servia, Obrez near Yagodina, Morava Valley II O.D.
Italy, Foggia (Apulia) I B.
Italy, Naso in Messina II B.
Movice Collins II B.
1739
            Jan.
                   3
            Feb.
1739
                    4
1739
            Feb. 13
            May
1739
1739
                            Mexico, Colima II O.B.
China (Shensi), Paishui in Tungchou Fu, Chishan in
Fenghsiang Fu I Ho.
            July 14
            Dec. 24
1739
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A.D.
1740
                           Italy, Salemi in Trapani
                    6
                                                           H
           Mar.
                                                                 в.
                           Italy, Barga in Garfagnano, Castelnuovo, Fanano, Modena,
           Mar.
1740
                    6
                                 etc. II B.
                           Italy, Sciacca in Girgenti - II B.
Mexico, Oaxaca and Mexico II O.B.
1740
           June 13
1740
           Aug. 25
                           China (Chihli), Wanchuan in Hsuanhua Fu
Italy, Cremona I B.
          Aug.-Oct.
1740
           April 15
1741
                           Italy, Fabriano, Urbino, Fano, Camerino, Pesaro in the
1741
           April 24
                                  (Marches)
                                                III B.
                           Chile, Wagerid
Italy, Siena I
                                                I P.
1741
           Aug. 25
                                                B.
II
           Oct.
1741
                    1
                           Italy, Leghorn II B.
Behring Island II M. & O.
Greece, Zante II P.
1742
           Jan.
                    1
1742
           Feb.
                    7
1742
           Feb. 14
                           Chile, north of the Taytao Peninsula and south of the
           Mar. 23
1742
                           Chonos Archipelago I Mon.

Siberia, Irkutsk I M. & O.

Siberia, Behring Island III M. & O. See Feb. 7.

China (Chihli), Huaian in Hsuanhua I Ho.
1742
           June 16
           June 16
1742
1742
           Sept.
                           Malta and Italy (Terra d'Otranto, Calabria, Messina), also
Cephalonia III B. & P.
1743
           Feb. 20
                           Chile, various earthquakes in the islands of Wager and Chiloe, also Valparaiso I Mon.
Italy, Ferrara I B.
1741, 1742, 1743
1743
           May 29
                           Philippines, S. Luzon (Laguna and Tayabas) III S.M.
1743
1743-45
                           Italy (Calabria, Messina) II B.
                                                            I
                                                                0.D.
                           Colombia, Bogota, Chia
1743
            Oct. 18
                           Italy, Spoleto (Perugia)
Greece, Corfu II M.
1745
           March
                                                            I
                                                               В.
1745
                           Greece, Corfu II M.
Italy, Montecassino (Casserta) I B.
1745
            Oct.
                           Japan, Tokio I O.
1746
           May 14
                           China (Kuangtung), Kuangchou, Sanshui, Tsengcheng in
Kuangchou Fu I Ho.
1746
        Mar. to July
                           Italy, Barga in Garfagnano
Italy, Orsaria (Friuli) I B.
Peru, Lima III H.J.
1746
            July
            Oct.
                    8
1746
            Oct. 28
1746
1747
            April 17
                            Italy, Nocera (Umbria)
                                                           11
                                                                 В.
1747
                            Peru, Carabaya I H.J.
                            Italy, Reggio (Calabria) I
1747
            Sept.
                                                                 В.
            Mar. 23
                           Mexico, Mexico and Oaxaca I
1748
                                                                      O.B
                           Austria, Neustadt I Ra.

1h. 0m., G.M.T. Philippines, S. Luzon, Manila (Rizal,
Laguna, Cavite, Batangas), N. Mindoro III S.M.
Iceland, Southland, Olfus, Borgatjirdr, Faxafloi area II
            June 8
1749
1749
            Aug. 12
1749
                                   Th.
                                                  Sayula, Zapotlan, and Amacuepan in
                           Mexico, Colima, Sayula, Zapotla
(Jalisco) III O.B.
Italy, Frascati, Albano (Latium)
1749 & 1750
            Jan. 28
1750
                                                                        I B.
                            Italy, Aquila (Abruzzi) I B.
1750
            Feb.
                   1
                                                        M.
1750
            Feb. 19
                            England, London I
                            England, London
                                                    1? M.
            Mar. 19
1750
                           South France, in and about the Pyrenees, also at Rodez,
Montpellier, Narbonne, Toulouse, Medoc, Pous in
Saintonge, Macaire in Guyenne, Bordeaux and
12 leagues to the west of Bordeaux, Tables II M.
1750
            May 24
                            Greece, Morea and the Island of Cerigo; 2,000 persons
            June 7
1750
                                   perished III
                                                       M.
1750
            June 24
                            Bavaria, Munich and Landshut II M.
                            Italy, Fiume (Udine) I B.
            Sept. 17
 1750
                            England, Northampton and Leicester
                                                                              I M. & W.
 1750
            Oct. 11
 1750
                            Roumania, especially at Philippopolis
                                                                             II M.
                            Japan, Kioto II Mi.
 1751
            Mar. 24
            Mar. 25
May 20
                            Chile, Concepcion; sea waves III Mon.
Japan (Echigo) III Mi.
 1751
 1751
            May 24
                            Chile, Concepcion, Santiago, Juan Fernandez; sea waves
III P.
1751
                            China (Yunnan), Yunnan, Tengehuan in Tali Fu, Hoching
1751
         May 25 & 30
                            in Lichiang Fu, Menghua II Ho.
Italy, Gualdo, Nocera and other towns in (Umbria)
B. & M.
 1751
            July 26
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			·
	A.D.		
	1751	Aug.	Italy, Palermo I B.
	1751	Sept. 25	Italy, Narni in (Perugia) II B.
	1751	Nov. 21	West Indies, St. Domingo, Port-au-Prince II M.
	1751	Nov. 21	Italy, Eastern Riviera I B.
	1751	Dec. 19	Italy, Eastern Riviera I B. Portugal (Traz-os-Montes), Torre-de-Moncorvo I M.
	1752	Feb. 16	Italy, Nizza and Oneglia I B.
	1752	Feb. 23	England, Dartmoor I M. & W.
	1752	Mar. 27	Portugal, at the mouths of the Mondego and Vouga,
			Averro II M.
	1752	May 17	China (Chehkiang), Chiahsing, Haiyen, Tunghsiung in
			Chiansing Fu, Huchou Fu I Ho.
		Beginning	
	1752	of June	Greece, Zante II M.
		July to Aug.	Formosa, Shoka, Kagi I H.
	1752	Aug.?	Italy, Citta di Castello (Perugia) I B.
	1752	Sept.	Italy, Frascati, Velletri and Marino in (Latium) I B.
	1752	Winter	Italy, Frascati, Velletri and Marino in (Latium) I B. Iceland, Olfus, 11-12 farms and one church fell II Th.
	1753	Feb. 11	Japan, Kioto I O. Italy, Modena I B.
	1753 -	Feb.	Italy, Modena I B.
	1753	Mar. 9	Italy, Luserna, Perosa, Susa (Piedmont) I B.
	1753	April 2	Italy, Citta di Pieve (Perugia) I B.
,	1753	May 26	Italy, San Gemini (Perugia) I B.
	1753	Dec.	China (Yunnan), Ning in Linan Fu III Ho.
	1754	Jan. 12	France, Vorreppe, two leagues from Grenoble II M.
	1754	May 15	13h. 0m. G.M.T. Philippines, S. Luzon (Batangas, Mindoro,
			Cavite, Tayabas, Laguna), Manila II S.M.
	1754	May	Formosa, Tamsui II H. Mexico, Acapulco, Mexico; sea waves III O.B. Turkey, Constantinople, Nicomedia, also at Adrianople and Asia Minor. Diarbekir, and Armenia, and at
	1754	Sept. 1	Mexico, Acapulco, Mexico; sea waves 111 O.B.
	1754	Sept. 2	Turkey, Constantinopte, Nicomedia, also at Adrianopte
			and Asia Minor, Diarbekir, and Armenia, and at Alexandria and Cairo in Egypt II M. ? two
	1771		earthquakes.
	1754	That o	Iceland, Krisuvik I Th. China (Yunnen), Yihmen and Linan Fu II Ho.
	1755	Feb. 8 Feb. 26	Servia, Vranje, Mastanica, Ristobac II O.D.
	1755		, , , , , , , , , , , , , , , , , , , ,
	1755	April 21	Japan, Nikko I O. Ecuador, Quito III R.S.
	$1755 \\ 1755$	$egin{array}{ccc} { m April} \ 26 \ { m Jume} & 7 \end{array}$	Ecuador, Quito III R.S. Northern Persia, Tabriz, <i>Kaschan</i> , Ispahan and Taurus,
	1100	June	40,000 perished III M.
	1755	Sept. 11-24	Iceland, Skagafjordr, Eyafjordr, Skjalfandi, north coast
	1100	Stpt. 11-21	Husavik, with eruption of Katla III Th.
	1755	Oct. 15	Italy Chambéry in Sayoy I B.
	1755	Nov. 1	Italy, Chambéry in Savoy I B. Italy, Island of Ponza I B. The Lisbon earthquake.
	1755	Nov. 1	Portugal the Great Earthquake of Lisbon, Faro, Scattwal,
	1.00	11011	Cascaez, slight damage at most of the towns in
			Portugal, Seville, St. Lucar, Xeres, strong in south
			Spain; sea waves III M.
	1755	Nov. 8	Spain, Lisbon II M.
	1755	Nov. 17	Spain, Gibraltar II M.
	1755	Nov. 17	England (Herefordshire) I M. & W. U.S.A., New England, provinces of (Massachusetts and U.S.A., New England, provinces New York, Philadelphia
	1755	Nov. 18	U.S.A., New England, provinces of (Massachusetts and
			New Hampshire), also at New York, Philadelphia, Chesapeake Bay in Maryland, Annapolis, also at
			Chesapeake Bay in Maryland, Annapolis, also at
			Halifax, Lake St. George II M.
	1755	Nov. 19	Spain, Gibraltar I M.
	1755		Azores, seismic or volcanic? M.
	1755	Nov. 19	Morocco, Mequinez, slight shocks were felt along Rhine, the
			in the Breisgau, at Aix in Savoy III M.
	1755	Dec. 9	Switzerland, Brieg, Valais I B.
	1755	Dec, 9	Throughout Switzerland and parts of France, Bavaria,
			Swabia, the Tyrol, the Italian Alps, Turin, milan,
			Pledmont, Savoy, Naples, Brug and Luce Chiavenna
			Throughout Switzerland and parts of France, Bavaria, Swabia, the Tyrol, the Italian Alps, Turin, Milan, Piedmont, Savoy, Naples, Brieg and the Valais, the whole chain of the Alps and Jura, Chiavenna, Aigle, Lake of Geneva, Glisa, Natria II M.
	1000	D 01	Algle, Lake of Geneva, Gusa, Natra 11 M.
	1755	Dec. 21	Switzerland, Brieg, also violent shocks the whole country round, also Lisbon and Algarbia, Algarve? III M.
	1755	Dec 90 97	Germany and Belgium, Lower Rhine, Maestricht, Sedan,
	1755	Dec. 26-27	Brussels, Liège, Chesnée and Cologne I M.
	1755	Dog 90	Switzerland, Brieg I M.
	1755.6	Dec. 30	
	1755-6		Italy, Ancona I B.

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A.D.
1756
           Jan. 2 & 3
                           China (Kiangsu), Suchou Fu; (Chehkiang), Tunghsiang in Chiahsing Fu, Huchou Fu II Ho.
                           In Change I
Ireland, Ballymore I
1756
           Jan.
                   2
                                                          M. & W.
           Jan. 15
                           Switzerland, Brieg I M.
The Alps, parts of France and Germany, Netherlands,
England, Portugal, Liège, Cologne I M.
1756
           Feb. 18
1756
                           Switzerland, Bireg
1756
           Feb. 19
                                                    I M.
                           Portugal, Lisbon II
           Mar. 11
                                                        M.
1756
           April 13
                           Italy, Padua, Verona and Trevisa I M. Italy, Padua I B.
1756
           Aug. 17
Aug. 25
1756
                           Japan (Omi)
                                             I
1756
                                                  Mi.
           Oct. 22
                           Italy, Naples, Calabria, Sicily and Greece I
1756
                           Siberia, Kamtchatka III M. & O.
1756
                           Portugal, Cascaes, Cintra, Colares, Ozyrat? and Sezimbra?
1756
           Dec.
                    4
                           China (Kiangsi), Jaochou Fu, Juichou Fu; (Chehkiang),
Chiahsing Fu, Huchou Fu II IIo.
China (Anhui), Huichou Fu, Chihchou Fu I Ho.
                    7
1756
           Dec.
1756
           Dec. 13
1757
           Feb. 22
                           Ecuador, Latacunga III
Portugal, Lisbon, Cascaes
                                                             R.S.
1757 Mar. 18 Portugal, Lisbon, Cascaes I
1757 April or May 15 Morocco, Salve on the coast
                                                              П
                                                                Ι
                                                                     M.
                           Throughout the Azores, Angra (Terceira), Island of St.
1757
           July 9
                                                                   À.
                                  George; sea waves III
                           Throughout the Azores, Norte Grande, Island of St. George,
1757
           July 10
                           Island of Topo II
Italy, Syracuse II B.
                                                       II M.
                                                                   See above.
1757
           Aug. 6
Dec. 14
1757
                            West Indies, Cuba, Santiago I
        Beginning of
1758
           January
                           North Africa, Constantine and at Tunis III
                           Turkey, Constantinople I M.
Russian Lapland, along the White Sea, at Kola and the environs I M. M. & O. give II
           Dec. 3 & 4
1758
1758
           Dec.
                            Italy, Pinerolo (Turin)
1759
           Mar. 30
                                                          II
                                                                В.
                           Mexico, frequent violent shocks; volcano Jorullo formed
         June 29 and
1759
       following days
                                  in (Michoacan) III O.B.
                           Turkey, Salonica and the town of Philippopolis I France, Bordeaux, Limoges and (Limousin) I M
           June 29
1759
                                                                                       м.
І
       Aug. 10
Sept. 28 & 29
1759
                           Mexico, the region round S. Pedro de Jorullo I M.
Asia Minor, Aleppo, Damascus, Tripoli, coasts of
Syria, Valley of Baalbek, the centre being at Saphet;
1759
           Oct. 30
1759
                                  at Acre the sea rose III M.
                           Asia Minor, Aleppo, Saphet, Damascus, Tripoli, coast
        Nov. 26 & 28
1759
                                  of Syria II M.
                           Sweden, Gothenburg, Jönköping, Œrebro? and Cluneur?
I M.
1759
           Dec. 22
           Mar. 25
                           China (Kansu), Chenyuan in Ching Circuit I
1760
                           Spain and Portugal, Lisbon, Oporto, felt as far as Madrid,
Santa Cruz in Barbary, Bordeaux in France, Amster-
1761
           Mar. 31
                                  dam in Holland, Cork in Ireland, Funchal in Madeira,
                                  and in the Azores II
                                                                 M.
                           Italy, Montecassino (Caserta)
1761
           April
                   5
                           North Africa, Barbary, Santa Cruz
                                                                          I M.
1761
           April
                    9
                           Central Asia, north-west of Altai, Shulbinsk, Semipalatinsk,
1761
           Dec.
                    9
                                  Barnoul to Ust-Kamenogorski I M.
                           India, felt all over Bengal, Arracan, and Burmah, Pegu,
north-east coast of Bay of Bengal elevated along a
length of 100 miles, Brahmaputra to Calcutta, Dacea,
1762
           April 2
                                  Ghirotty, Chittagong and Bakar Tschurak II
                                  & O1.
                           Italy, Mugello (Tuscany) II B.
Italy, Cassamicciola (Ischia) I B.
Italy, Poggio, Piccaze and other places in (Aquila)
           April 17
1762
1762
           July
                                                                                                  В.
1762
           Oct.
           Oct. 31
                           Japan (Sado) II
                                                   0.
1762
                                                    Μ.
1762
           Nov.
                   6
                           Spain, Aquila
                                               \mathbf{II}
1762
           Nov.
                    8
                           West Indies, Jamaica
                                                         I
                                                             Μ.
                           Colombia, Department of Cauca
                                                                      Ι
1763
           January
                                                                          O.D.
                           Italy, Bronte, Paterno, Nicolosi (Catania); connected with opening of a crater I B. Hungary, Comorn, Raab, Pesth, Buda, Kerepas, Temeswar,
1763
        Feb. to June
1763
           June 28
                                  Belgrade, Leobersdorf II M. & Ra.
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A.D. 1763	July 29	Hungary Comerce also at Deal III M
1763	Aug. 9	Hungary, Comorn, also at Raab III M. Hungary, Raab II M.
1763	Sept. 1	Moluceas II M.
1763	December	China (Yunnan), Chiangchuan in Chengehiang Fu, Hoshi, Tunghia in Linan Fu III Ho,
		Tunghia in Linan Fu III Ho.
1764	June 4	india, on the banks of the Ganges 11 M. & Ol.
1761	June 27	China (Kiangsu), Lishui in Kiangning Fu, Suchou Fu, Changchou Fu II Ho.
1764	Oct. 12	Azores, Fayal II M.
1761	Oct. 12 Dec. 2 & 3	Hungary, Peterwaradin I M.
1765	April	Central America, San Salvador, San Cristoval, Ilopango,
		San Martin, San Pedro-Perulapam, San Partolome-
150-	35 . 10	Perulapilla III Mon.
$\begin{array}{c} 1765 \\ 1765 \end{array}$	May 19 Sept. 2	France, French side of the Pyrenees I M.
1765	Sept. 3	China (Shensi), Fenghsiang Fu I Ho. China (Chehkiang), Chingning in Chuchou Fu III Ho.
1765	Oct. 24	Guatemala, Mexico, Tehuantepec? Suchiltepequez III
		Mon.
1766		Sweden (Halland), Harstoëff I M.
1766		Japan, Oshiu, Awomori, Tsuruga III Mi.
1766	April 5-21	Iceland, Southland; three farms fell in Olfus, Arnessysla;
1766	May 22	eruption of Hecla I Th. Turkey, Constantinople and several other towns II M.
1766		West Indies, Jamaica, Port Royal and Cuba, Santiago III
1100	0 4410 11	M.
1766		Greece, Zante and Cephalonia II P.
1766	Aug. 5	Austria, Hungary, Turkey, Vienna, S. Marguerita, Con-
		stantinople, Adrianople, Gallipoli, Salonica, Smyrna,
1766	Ang 95	Enos, Tenedos and Brussa II M.
1766		West Indies, Martinique, St. Pierre II M. West Indies, Cuba, St. Jago or Santiago III M.
1766		Armenia, Pasin, Hassan II M. & O.
1766		Venezuela, Cumana and Caracas; New Granada, Island
		of Trinidad, Surinam and all the north-eastern
1700	B Dec. 7	portion of S. America III M.
$\begin{array}{c} 1766 \\ 1766 \end{array}$		2h. 45m., G.M.T. Philippines, Manila I S.M. Italy, Foligno and Norcia (Perugia) I B.
176		Turkey, Constantinople I M.
176		Italy, Rotaro in Ischia I B.
176		Italy, Fivizzano (Tuscany) II B. 7th, 17h. 5m., G.M.T. Philippines, Manila and neigh-
176	7 Feb. 8	7th, 17h. 5m., G.M.T. Philippines, Manila and neigh-
176	Feb. 7	bouring provinces I S.M.
176		Italy (Liguria), Genoa and other places I B. Germany, Gotha, Cassel, Göttingen, Helmstadt, Mul-
110	ripin to	hausen, Rothenburg I M.
176	7 May 26	Italy, Val di Lanzo (Piedmont) I B.
176		Italy, Spoleto (Perugia) II B.
176'	7 July 14-15	Italy, Luzzi, S. Agata in Cosenza and felt as far as Galli-
176	7 Tuly 11 & 94	poli II B.
176		Greece, Island of Cephalonia, Zante, St. Maura III M. 7h. 25m., G.M.T. Philippines, S. Luzon, Manila and
. 110	. 11011.10	neighbouring provinces I S.M.
176	8 Feb. 27	Austria, Vienna, Neustadt, Presburg, Bischoffswerder and
		Freiberg I M. & Ra.
176		China (Kansu), Chenyuan in Chingchou Circuit I Ho.
$\frac{176}{176}$		Mexico, Mexico, Puebla and Vera Cruz II O.B.
176		England, Manchester I M. & W. Italy, Santa Sofia (Florence) II B.
176		Italy, Santa Sofia (Florence) II B. Turkey, Bagdad III M. Partly hurricane.
176	9 Aug. 29	Japan (Hyuga) II O.
176		Siberia Irkutsk and Selenginsk I M
176	9 Nov. 18	France, Avignon and near Roquemaure and Bedarrides II M.
176	9 Nov.	Scotland, Inverness I M. & W.
177		Scotland, Inverness I M. & W. China (Anhui), Chichi in Huichou Fu; (Kiangsi), Pengtse
	- Contractor y	in Chiuchiang Fu I Ho.
177		in Chiuchiang Fu I Ho. Greece, St. Maura, 700 houses destroyed III M.
177		West Indies, Western part of St. Domingo, Port-au-Prince
177	O T.	111 M.
111	0 June	Italy, Reggio (Calabria and Messina) I B.

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A.D.
1770
           Nov.
                           Saxony, Schomberg I M.
            Dec. 27
                            Italy, Upper Valdarno (Tuscany) I B.
1770
                            Italy, Leghorn I B.
1771
                    8
           Jan.
                            Italy, Alba in Cuneo I B.
1771
        Jan. 28-April
                           Phillippines, S. Luzon, Manila (Rizal, Cavite and Laguna)
II S.M.
1771
           Feb.
         First half of
1771
                            West Indies, Martinique, St. Pierre, Port Royal
           Feb.
                           Siberia, The Ostrog of Tounkiskinskoi? near Zaisan Nor
1771
           Aug.
                    7
                                       M.
1771
                           West Indies, Jamaica I M.
West Indies, St. Domingo II P.
           Sept.
1771
           Oct.
                    3
                           France, Parthenay, Department of Deux-Sèvres II
1772
           Jan.
1772
           Feb. 18
                            Russian Lapland, in the neighbourhood of Kola
                                                                                               M.
                           Portugal, Lisbon I M.
China (Yunnan), Yunnan, Tali Fu III Ho.
Switzerland, in the Tyrol I M.
France (Basses-Pyrénées), Arudy I M.
           April
1772
1772
           Aug.
1772
           Sept. 13
1772
           Oct.
                           Siberia, Irkutsk, Selenginsk and Kiakhta
                                                                                  I M. & O.
1772
           Dec.
1772
                            Caucasia, Beschtau mountains
1773
           Jan.
                            Morocco, at Old Fez II
                                                            M.
         Jan. 16-24
                           France, Tulette near Claussayes (Dauphiny), Valréas,
La Garde, Montélimar, St. Andéol and Viviers
1773
                                   I M.
         Jan. 27 & 28
                           Hungary and Servia, Semlin and Belgrade
France, Claussayes I M.
1773
1773
           Feb. 24
April 12
                           Spain and Africa, Cadiz, Rota, S. Maria, Port Royal, Lisbon, Madrid, Malaga, Gibraltar, Salee and Tangiers II M.
1773
1773
                           Greece, Corfu
           May 12
                                              II
                           Guatemala III
                                                  Mon.
1773
           May
                           Guatemala, St. Jago or Santiago; 5,000 to 8,000 families
1773
           June
                           lost their lives III M.
Guatemala and Chile, Santiago in Guatemala, Copiapo in
Chile III M. & Mon. This and the two previous
1773
           July 29
                           chie III M. & Moh. This and the two entries probably refer to the same event. France, Claussayes II M. France, Montdauphin I M. Prussia (Silesia), Ratibor I M. Italy, Parma I M. & B.
1773
           Nov. 25
Dec. 31
1773
        Jan. 26 & 27
1774
           Mar.
1774
                   4
           April
                           Formosa, Shoka, Kagi I H.
1774
                           Central America, Salvador, Huizucar, Huitza, Mexico?

Panchimaleo, also coast from Acajutla and the
Cordilleras III Mon.
1774
           July
1774
         Sept. 10
Oct. to Nov.
                           Switzerland, Altdorf and Stirenzen II
                           China (Kiangsu), Chingpu, Sungchiang in Sunchiang Fu
1774
                                      Ho.
                           Chile, Valparaiso
1775
           Mar. 17
                                                  I
                                                        Mon.
                           China, Yunnan, Chuhsiung Fu I Ho.
Guatemala III M. Possibly the same earthquake as
        June to July
1775
1775
          July 1 & 2
                                   the one recorded for 1773
                           Corsica, Vico I M.
France, Toulouse, Alençon, Havre, Caen, St. Lo and Falaise I M.
1775
           Oct. 22
           Dec. 30
1775
           Feb. 27
                           Malta
                                    I M.
1776
1776
           Mar. 29
                           Italy, Rieti (Perugia and in the Abruzzi) II B.
         April 21 to
May 12
                           Mexico, S. and W. to Acapulco II M. & O.B.
1776
                           Austria and Italy, Trieste, Laibach, Tramonti (Udine),
Venice and in the Friuli II M. & B. In Italy I
          July 9 & 10
1776
                           France, Carcassone (Dept. de l'Aude)
                                                                             I M.
1776
           Aug. 4
Nov. 28
                           Germany, Mannheim I M.
Siberia, Barguzin Fort, Transbaikalia I M. & O.
Formosa, Kagi III H.
Italy, Cella and Abbadia, S. Salvatore, Radicofani (Tus-
1776
1776
           Dec.
1776
           Dec.
1776-78
                                            1
                                                В.
                                  cany)
1777
           Jan. 26
                           Peru. Lima
                                            I
                                                 H.J.
                                                I . O.B.
1777
                           Mexico, Jalisco
1777
           Feb.
                           Switzerland, Lucerne, Sarnen I M,
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A.D.
1777
             Aug. 19
                              Italy, Sora in Caserta I B.
                              Transylvania, Hermannstadt and on the borders of
1778
            Jan. 18
                                      (Moldavia and Walachia), Kronstadt II
                              Japan (Aki, Bizen, Bitchu, Bingo) II O.
Asia Minor, Smyrna II M.
Asia Minor, Smyrna II M.
1778
             Feb. 14
1778
             June 16
1778
             July
                     3
1778
            Oct.
                                                                  M.
                      1
                              Asia Minor, Smyrna
                                                              I
                              Asia Minor, Smyrna
1778
             Oct.
                     3
                                                            1
                                                                  M.
                                                                        Continuation of Oct. 1.
          Nov. 12, 13,
1778
             and 14
                              Spain, Granada I M.
                              Venezuela, Caraccas
                                                            I
1779
             Jan. 25
                              Italy, Bologna II M. & B.
Siberia, Irkutsk, Balagansk, Selenginsk I
1779
        June and July
1779
             Aug.
                                                                                            M. & O.
           Aug.-Dec.
                              Italy, Portice, Naples, Massa and Sorrento
1779
             Oct. 20
1779
                              France, St. Girons in the Pyrenees I M.
             Nov. 8
Dec. 17
Jan. 27
1779
                              Japan (Satsuma, Osumi)
                              Japan (Sado) I O.
Malta I M. & B.
Persia, Tabriz II I
Japan, Tokio I O.
1779
1780
          Feb.-Mar. 3
                                                         Μ.
1780
1780
             April 16
1780
           April-May
                              Italy, Sicily (Calabria), Lipari Islands
                                                                                     T
            May
1780
                              Japan, Chishima or Kurile Islands II
1780
         Beginning of
                              Island of Candia; 13 villages disappeared
             October
                              West Indies, Jamaica, Savanna, La Mar II P.
1780
             Oct.
            April 4 or
1781
             July 17
                              Italy, Faenza and Forli (Emilia)
             April 13
1781
                              Italy, Island of Ponza I B.
                              Italy, Urbania, Sant Angelo, Apacchio, Piobicco, Cagli,
Palcano, etc. (Marches) and less violent over a large
surrounding area III B.
1781
             Jûne
                              Italy, Caravaggio, Treviglio, Carsano (Lombardy)
1781
             Sept. 10
                              Peru and Venezuela, Arequipa, Cumana II O.D. West Indies, Cuba I O.D. Italy, Ortona (Chieti) I B.
1782
1782
             Feb. 25
May 15
1782
                              Hungary, in the county of (Trentschin) II M. Argentina, Mendoza I Mon.
1782
             May
1782
             May 22
                              China (Chehkiang), Huchou Fu; (Kiangsu), Suchou Fu,
Sungchiang Fu I Ho.
1782
         July to Aug.
                              France, Grenoble I M.
Japan, Tokio; (Sagami) II Mi.
Japan, Tokio; (Sagami) II Mi.
Japan, Tokio, Odawara; (Uzen, Ugo) III Mi.
Italy, Monteporzio in (Latium) I B.
Hungary, Comorn II M.
Italy (Calabria and Messina) and felt throughout Sicily and
             Aug. 15
Aug. 22
Aug. 23
1782
1782
1782
          Sept. 24
End of Dec.
1782
1782
1783
           Feb.-Mar.
                              eastwards to Galipoli in Apulia III B.
Japan, Tokio I Mi.
Greece, Zante, Cephalonia, and St. Maura II P.
\frac{1783}{1783}
             Mar. 4
Mar. 26
             April 11
1783
                              Hungary, Comorn II M.
                              Hungary, Comorn, along the Danube, Raab, Presburg, Pesth, Buda, Odemburg, Estherhaz II M.
Philippines, N.W. Mindanao, around Dapitan Bay, Dapitan I S.M.
Austria, Val di Ledro (Trent) in the Tyrol I B.
            April 22
1783
1783
             April 19
1783
             July 28
                              Japan (Shinano), Eastern Provinces
1783
             Aug. 5
                                                                                  I Mi.
                              Italy, Torremaggiore (Foggia)
           Nov. 15-16
1783
1783
                              Guatemala II M.
          End of Dec.
                              Austria, Prague, the circle of Leutmeritz and the circle of Saaz as far as Eger, Dux I M.
Italy, Ariccia (Latium) I B.
Chile, Arica, Valley of Tambo II Mon.
1784
             Mar. 20
1784
         Mar.-April
Good Friday
1784
                              Peru, Arequipa, the districts of Camana and Moquegua III M.
1784
             May 13
                              Turkey, in the Paschalik of Erzerum and the city of Erzingam; 5,000 people injured III M.
West Indies, St. Domingo, Port-au-Prince, Goave, Léogane
1784
             July 23
1784
             July 29
                                     II M. enia, Erivan, extending to Erzerum, Mush and Gurgur III M. & O.
1784 Early in Aug.
                               Armenia,
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A.D.
1784
                          Iceland, Southland, Arnessysla, Rangarsysla;
         Aug. 14-16
                                 hundred farms and some thousand houses fell III
                                 Th.
        Beginning of
1784
           Sept.
                          Greece, Cephalonia, St. Maura and Argos I
                                                                                   M.
1784
           Oct.
                           Italy, Cossenza (Calabria)
1784
          Dec. 5 or
                          France (Vosges), Neufchâteau, Roucoux
Greece, Patras II P.
           Nov. 29
1789
                                                                                  M.
                                                                              I
           Jan. 30
1785
                          Russia, Mosdock on the Terek and the country round,
Kislar, Astrakhan and the environs I M.
           Feb. 23
1785
1785
         Mar.-April
                           China (Fukien), Nanan in Chuanchou Fu
                                                                                    Ho.
1785
                                  (Kiangsu), Piyang in Hsuchou Fu, Yuhmen
           May 13
                                                                                                Ħ
                                 Pà.
                          Mexico, Cholula in Puebla and Chilapa in Guerrero O.B.
1785
           June 26
                                                                                                H
                          Italy, Cozenza I B.
West Indies, Antigua
1785
           July
           July 11
                                                       \mathbf{II}
1785
           July 12
                          7.45 a.m. Columbia, Bogota, Ibagué
1785
                                                                          H
                                                                                 O.D.
           Aug. 22
                           Austria (Moravia and Silesia), Ratibor and Pless
1785
                                                                                             Μ.
1785
           Sept. 12
                          Italy, Val di Susa (Piedmont)
                                                                 II B.
1785
           Oct. 1-2
                           Austria, Linz, Gallneukirchen and other places in the
                                 neighbourhood I M.
                          Italy, Piedeluco, Bonacquisto, Papigno and neighbouring towns in (Perugia) II B.
1785
         Oct. 2 & 9
                          Mexico, Acapulco II
Formosa, Hozan I
1785
           Dec.
                                                        Bo.
                          Formosa, Hozan
                                                    \mathbf{H}.
1785
           Feb.
                          Greece, Corfu, 120 lives lost, Argos
Transylvania, Klausenburg I M.
1786
                   5
                                                                        III
1786
           Feb.
                  15
                          All over Upper Silesia, Poland, Hungary, Moravia, and
Bohemia, from Brünn to Cracow, Schwechwitz I
1786
           Feb. 27
                           Italy, Patti, Naso, Tindari and other places in Messina,
           Mar. 9 &
1786
           July 24
                                  and also in Calabria III B.
                          Italy, Milan, Monza, Bergamo and other places in (Lombardy) I B.
           April
1786
                          China (Ssuchuan), Chungching Fu; (Yunnan), Tengyueh
1786
        June to July
                                 in Yungchang Fu
                                                        I Ho.
                          Italy, Lucoli, and elsewhere in Aquila
1786
        July to Oct.
                                                                          H
                                                                                 В.
          July 26
Aug. 11
Nov. 24
                          China, Ili near Kuldia II
1786
                                                            Pa.
                                                                                I
                          England, Cumberland and North Lancashire
1786
                                                                                       M. & W.
                          Italy, Alba in (Cuneo) and adjacent towns I B.
Hungary and Silesia, Tarnowitz, Pless, Brieg, Ratibor,
1786
1786
           Dec.
                                 Leobschutz, Neisse I Ra.
           Dec. 23
                       China
                                                  Yuanchiang, Lungyang, Changte in
1786
                                   (Hunan),
                                 Changte Fu
                                                   1
                                                       Ho.
                                                  В.
1786
           Dec. 25
                          Italy, Rimini
                                             \mathbf{II}
                          U.S.A., Alaska, Pavloff, with volcanic eruption III F.R.
1786
                          Java, district of Batur, Djampang III
1786
           Feb.
                          Chile, Castro I Mon.
1787
1787 Mar. 23 Peru, Arequipa I Mon.
1787 Mar. 28-April 3 Mexico, centre near San Marcos, Acapulco, Ayutla,
Igualapa, Teotillan in Oaxaca, Michoacan and south
to Tchuantepec; sea waves III O.B. & Bo.
                          12th, 22h. G.M.T. Philippines, Panay Island, Provinces
1787
           May 13
                                                                                    S.M.
                                 of (Iloilo and Antique), Buenavista
                                                                               II
                          of (Hollo and Antique), Buenavista II S.M.
12th, 23h. G.M.T. Philippines, Panay Island, Provinces
of (Hollo, Capiz, Antique) and Guimarus III S.M.
Italy, Ferrara I B.
West Indies, Jamaica, Kingstown and Port Royal I M.
Italy, Poppi (Arezzo) I B.
Servia, Vranje, Mostanica, Ristobac III O.D.
1787
           July 13
         July 16-26
Oct. 1 & 21
1787
1787
           Dec. 26
1787
1788
                           Asia Minor, Palu III M. & O. Italy, Fano in (Pesaro) I B.
1788
           Spring
           April 18
1788
                           China (Yunnan), Tungchuan Fu
Alcutian Islands III M. & O.
1788
        June to July
July 22
1788
           Oct. 12
                           West Indies, St. Lucia; 900 lives lost III
1788
                                                                                 Μ.
           Oct. 20
                          Italy, Tolmezzo (Udine), throughout (Friuli), Venice and Padua II M.
1788
1788
        End of Dec.
                           Hungary, Carlowitz
                                                    \mathbf{II}
                                                           M.
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A.D.
                         Malta II O.D.
China (Yunnan), Tunghai, Ning in Linan Fu, Chengchiang
Fu I Ho.
1789
          Jan. 19
1789
        May to June
                         Iceland,
                                    Skalholt, Arnessysla, Tingvallavatn III M.
1789
          June 10
                               & Th.
1789
          Sept. 30
                         Italy,
                               , Citta di Castello, Selci, Cerbaia, Lame and other places in (Perugia) III B.
                                  II M.
1790
          Mar. 18
                         Italy, Tolmezzo (Udine)
1790
                                                       H
                                                             B.
                                         II B.
1790
          Mar. 21
                         Italy, Malta
1790
          April?
                                Val di Noto, Caltanisetta (Messina)
                                                                            H
                                                                                в.
1790
          April 6
                         The Bannet, all Transylvania, as far as Constantinople,
                                Roman, Jassy, Kaninieck, Bucharest
                                                                                I M.
                         & O. give III

Mexico (Vera Cruz), Cordoba, Oaxaca and Mexico
1790
          April 20
                                                                                           П
                                O.B.
          May 19
July 26
Sept. 21
                         Chile, Tucapel I Mon.
Italy, Pontremoli (Massa)
1790
1790
                         Venezuela, Caraccas I P.
South coast of Spain and North Africa, Oran, Carthagena,
1790
1790
          Oct.
                                Malaga, Santa Fé and Malta II M.
1790 ?
                         U.S.A., California, Inyo County III F.R. Japan, Tokio I O.
1791
          Jan.
                  1
                         Italy, Aquila II B.
Siberia, Nizhne-Kamtchatka II M. & O.
U.S.A., Connecticut, Bridgeport and Hartford
1791
          Jan.
           April 15
1791
1791
          May 16
1791
           Aug. 29
                         Hungary, Pressburg and the country round
                         Italy, Foligno (Umbria)
           Oct. 11
1791
                                                       I B.
           Oct.
1791
                 12
                                                                                   в.
                         Italy, Monteleone and surrounding places III
                 13
1791
           Oct.
                         Italy, Capri I B.
                         China (Shantung), Wenting, Jungcheng in Tengchou Fu
I Ho.
1791
           Nov. 14
                         Greece, Island of Zante; shocks continued six weeks
1791
           Nov.
                                M. & P.
                         Canada, St. Paul's Bay in the St. Lawrence I M. England, Leicester, Lincoln, Biggleswade, Bedfordsnire I M. & W.
1791
           Dec.
1792
           Mar.
1792
           Mar. 23
                          Japan (Hizen)
                                                  Mi.
                                            \mathbf{II}
                          China (Kiangsu), Suchou, Chentse in Suchou Fu I Ho.
Formosa, Kagi III H.
           June 24
1792
           July 20
1792
1792
           July 20
                          Italy, Strettura in Spoleto
                                                          Ι
                                                               в.
                          Siberia, Petropavlovsk, Nizhne-Kamtchatka, Paratunka and
           Aug. 23
1792
                                all the east coast of Kamtchatka II M. & O.
                                              I Mon.
1792
                          Chile, La Serena
                          Timor, Coepang II M.
West Indies, St. Domingo
1793
                                                          II M.
1793
                          Italy, Ventottene, one of the Pontine Islands
1793
          July 24-25
1793
                          Chile, Arica I Mon.
           Aug.
                          England, Salisbury and Shaftesbury I M. & W.
Austria, Vienna, Styria, Brünn, and Leoben, Grätz, also
           Sept. 28
1793
           Feb.
1794
                                in the Murzthal II M. a (Yunnan), Tali I Ho.
                          China (Yunnan), Tali I Ho.
Russia, Casan or Kasan III M.
           Feb.
1794
1794
           Mar. 14
Mar. 26
                          Peru, Lima I H.J.
China (Yunnan), Yiliang in Yunnan Fu III Ho.
IIaly, Tramonti, Socchieve, and other places in (Udine)
II B.
Austria, Trieste I B.
1794
          May-June
1794
1794
         June 6 & 30
1794
           June 7
1794
           June 12
                          Italy, Ariano (Avellino)
                                                            В.
                          Italy, Portici, Resina and Naples, preceding an eruption
1794
          June 13-18
                                of Vesuvius I B.
1794
           Oct. 11
Nov. 25
                          West Indies, Jamaica, Kingston I
 1794
                          Japan, Tokio I Mi.
                          Mexico, Oaxaca, Puebla II O.B.
China (Chihli), Luan in Yungping Fu, Tungkuang in
Hochien Fu III Ho.
1795
           May 23
 1795
           Aug.
                          Italy, San Gregorio in (Latium) I
 1795
           Aug. 15
                          Formosa, Kagi II H.
 1795
           Aug.
           Feb. 4 & 5
                         Italy, Florence and Arezzo I B.
 1796
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	4 D		
	A.D. 1796	Feb. 26	Asia Minor, especially at Latakia; 1,500 perished III M.
	1796	Mar. 18	Italy Cosemiagicle (Igobia) II P
	1796	Mar. 30 Oct. 22	Chile, Copiapo, Vallenar III Mon.
	1796	Oct. 22	Chile, Copiapo, Vallenar III Mon. Italy, Ferrara, Medicina (Bologna) I B. Philippines, S. Luzon, Manila (Rizal) III S.M. Fancier Ovite Bishoshia (Rizal)
	1796	Wab 4	Philippines, S. Luzon, Manila (Rizal) III S.M.
_	1797	Feb. 4	Ecuador, Quito, Riobamba, Latacunga, Ambato; 40,000 perished III M.
	B	etween Eeb. 1	
	1797	and Mar. 7	Philippines, Manila I S.M.
	1797	Aug. 5	China (Chihli), Luan in Yungping Fu, Chi in Shuntien Fu III Ho. See 1795, Aug. 5.
	1797	AugSept.	China (Yunnan), Shihping in Linan Fu I IIo.
	1797	Dec. 4 & 14	Venezuela, Cumana, Cariaco and the surrounding country;
	1700	TA-1- 0	16,000 lives lost III M. & P.
	$\begin{array}{c} 1798 \\ 1798 \end{array}$	Feb. 2 Mar. 14	Salvador, San Salvador, Cuscatlan III Mon.
	1780	mar. 14	France, Dept. of Meurthe, Sarreguemines, Bliastel, Bitche I M.
	1798	May 23	Russia (Perm), Kungur and villages of Perm, Oka and
		•	Russia (Perm), Kungur and villages of Perm, Oka and Verkhoturie district I M. & O.
	1798	May 26	Italy, Siena II B.
	1798	July 8	Japan (Kaga) II O.
	1798	Nov. 7	France, Bordeaux and the country round I M.
	1799	Jan. 25	West coast of France at Rouen, Nantes, La Vendée,
	1799	Feb. 6	Bordeaux, Caen and in Jersey II M. Guernsey I M. & W.
	1799	Feb. 19	France, Avignon II M.
	1799	Mar. 1	France, Avignon II M. China (Shantung), Wenteng, Jungcheng in Tengchou Fu
			I Ho.
	1799	May 29	Italy, Brescia, Cremona, Vicenza I B.
	1799	June to July	China (Chihli), Yungping, Linyu in Yungping Fu I IIo.
	$1799 \\ 1799$	July 28 AugSept.	Italy, Camerino, San Ginesio, Cessapalombo III B. China (Yunnan), Shihping in Linan Fu, Chiangchuan in
	1100	AugBept.	Chengehiang Fu, Hsinping in Yuanchang I Ho.
	1799,	end of	Colombia and Venezuela, Cartago, Truxillo III Mon.
	1800	Feb. 4	Colombia, Venezuela and Ecuador III O.D. Same as above?
	1800	Feb. 26	Portugal, Lisbon I M.
	1800	Mar. 8	Mexico, Mexico City, Mixteca in (Oaxaca), Canada in (Puebla), Morelos, Vera Cruz III O.B. China (Chihli), Luan, Changli in Yungping Fu I IIo.
	1800	Mar. 20-21	China (Chihli), Luan, Changli in Yungping Fu I Ho.
	1800	Oct. 17	Valley of Ossau in the Pyrenees I M.
	1800	Dec. 29	Italy, Valletri in (Latium) I B.
	$\begin{array}{c} 1801 \\ 1801 \end{array}$	Jan. 1 July	Chile, La Serena III Mon. Sweden, Eskilstuna in Södermannland II M.
	1801	Oct. 5	Mexico, Oaxaca III O.B.
	1801	Oct. 8	Italy, Bologna I B.
		Beginning of	
	1801	December	Austria, Laibach in Carniola and Eger I M.
	1801-		Italy, Bardi in Piacenza I B.
	$\begin{array}{c} 1802 \\ 1802 \end{array}$	Jan 17 FebMar.	Spain, Torre de la Mata and Torrevieja I M. China (Yunnan), Yunnan, Langchiung in Tali Fu III
	1002	renmar.	Ho,
	1802	May 12	Italy, Soncino, Gallignano, Romanengo and other towns
			in Brescia III B.
	1802	Aug. 15	Venezuela, Cumana II P.
	1802	Oct. 26	Austria, Hungary, Russia, and Turkey, Bucharest, Con-
			stantinople (Pera), Transylvania, Wallachia, Moldavia, Hermannstadt, Temeswar, Lemberg, Kief, Aral.
			Tula, Moscow and St. Petersburg II M. M. & O.
			give III
	1802	NovDec.	China (Shantung), Chucheng in Chingchou Fu; (Kiangsi)
	1000	NT 7	Yutu, Kanchou Fu 1 Ho.
	$\begin{array}{c} 1802 \\ 1802 \end{array}$	Nov. 7 Nov. 8	At and around Algiers, Blidah II M.
	1802	Nov 26	Germany, Strasburg and Weissemburg I M. Turkey, Constantinople, Galata and Pera I M.
	1802	Nov 26 Dec. 28	Japan (Sado); sea waves III Mi.
	1802	200. 20	Aleutian Island II M. & O.
	1803		Ecuador, New-Riobamba III R.S.

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A.D.
1803
            Jan.
                            Poland, Bielostok, Grodno I
                                                                      M.
1803
            Feb.
                            France, Marseilles I Japan, Tokio I O.
                                                      T
                                                          M.
1803
            April 25
                            Japan, Tokio I O.
India, Calcutta, Barahal, Badrinath
1803
            Sept.
                     1
                                                                               III
                                                                                     OL
                            Caucasia, Tiflis I
Austria, Styria I
            Oct. 29
1803
                                                       Μ.
1804
            Feb.
                                                       M.
                            Greece, St. Maura, Zante, Patras in the Morea
1804
            June
                                                                                           II M.
                    7
1804
                            Japan (Ugo), Shonai III Mi.
            July
            Aug. 25
                            Spain (Granada), Almeira and the surrounding district of
Malaga and Carthagena, Castel del Popolo, or Castillo,
1804
                                    Enix, Dalias and Roquetas II M.
                            Spain (Granada) I M.
Caucasia, Tiflis I M. & O.
1804
            Sept. 16
            Oct. 11
1804
            Oct. 18
1804
                            Italy, Val d'Elsa in Siena
1805
            Mar. 21
                             Austria, Innsbruck I M.
1805
            July 16
                            Colombia, Honda, Magdalenenstromes
                                                                                   \Pi
                                                                                          O.D. R.S.
                                   gives III
1805
            July
                     3
                            Greece, Island of Candia II
                                                                    В.
1805
            July 26
                            Italy,
                                    Frosolone, Boiano, Vinchiaturo and throughout (Molise) and as far as Salerno and Naples III B.
                            China (Chihli), Luan in Yungping Fu; (Honan), Chiyuan in Huaiching Fu I Ho.
Italy, Nola, S. Maria di C. V. (Caserta) I B.
China (Kiangsi), Fengcheng in Nanchang Fu, Chian Fu, Huichang in Kanchou Fu II Ho.
1805
            Aug.
1805
            Oct. 13
1806
            Jan. 2-3
1806
            Feb. 12
Mar. 24
                             Italy, Novellara, Correggio, etc. (Emilia)
                            Midnight, U.S.A., California, Santa Barbara I F.R.
Mexico, Zapotlan in Jalisco, Colima, Oaxaca, Michoacan,
1806
1806 Mar. 25-Apl. 3
                             and the east III
Formosa, Shoka I H.
                                                              O.B.
1806
         Mar. & Nov.
                            Italy, Reggio and other places in (Calabria) I B. Siberia, Irkutsk I M. & O. Italy, coast of Nice I B.
1806
           April 9-10
            April 22
1806
1806
            June 19
1806
            July 21
                             Italy, Montecassino (Caserta)
                                                                ta) I B
M. & O.
                            Russia, Krasnoyarsk III M. & O.
Italy, Frascati, Genzano, Nami, Velletri in the hills of
(Latium) II B.
            Aug. 8
Aug. 26
1806
1806
1806
           Nov.-Dec.
                             China (Kiangsi), Fuchou Fu, Kanchou Fu I
1806
            Nov. 1
                            Spain, Granada II M.
                             Salvador, San Salvador III Mon.
1806
                            Peru, Lima I H.J.
China (Kansu), Chenyuan in Chingchou I Ho.
France, in the Northern part of the Puy-de-Dôme
1806
            Dec.
            Jan. 22
1807
            Mar. 30
                                                                                                     M.
1807
                             Italy, Tramutola, Saponara (Basilicata)
1807
            Nov. 10
1807
            Nov. 18
                             Algiers II
                                             M.
                            Mexico, Acapulco (Guerrero) II O.B.
Italy, Valli del Pellice and Chisone in Turin III
India, Calcutta, Chandernagore I Ol.
1808
            Feb.
1808
            April 2
                                                                                                 В.
        April 13
April 14 & 16
May 17
1808
1808
                            France and Switzerland, La Tour and Lucerne
                                                                                                Μ.
1808
                             Italy, Briquerasque or Bricherasio I M.
            Aug. 1
Oct. 26
                             U.S.A., San Francisco, Upper California III
1808
1808
                             Italy, Leghorn I B. Russia, Viatka and district I M. & O.
            Mar. 10
April 5
1809
                             Japan (Shinano) II Mi.
Formosa, Shoka I H.
1809
1809
            April
                            Greece, Island of Corfu I M.
China (Fukien), Hsinghua Fu III
China (Fukien), Hsinghua Fu III
Italy, Aquila in the Abruzzi I B
Italy, Macerata (Marches) II B.
            May
1809
                    3
          July 30
Aug. 7 & 8
1809
                                                                             Ho.
1809
                                                                             Ho.
                                                                                     See above.
1809
            Aug. 14
Aug. 25
                                                                         В.
1809
                             Italy, Rome, Montecompatri (Latium) I
1809
            Winter
                                                                                      В.
1809
                             India (Gurhwal) I Ol.
                            Hungary, Stuhlweissenburg, the centre was apparently

Mt. Csoka II M.

Japan (Sado) II Mi.
1810
            Jan. 14
1810
            Feb.
                             Greece, Island of Candia; 2,000 lives lost III
            Feb. 16
                                                                                              Μ.
1810
                             Canary Island and Island of Teneriffe III
1810
         Mar. 20 or 25
1810
                             Hungary, Mur II M.
            April 14
                             Azores, St. Miguel in St. Michaels, Las Casas; shocks until
1810
            Aug. 11
                                    Jan, 1811 III M.
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A.D.
             Dec. 25
1810
                              Italy, Novellara and other places in (Emilia) I B.
1810
                              Formosa, Tamsui I H.
                             Greece, Zante I P.
Italy, Rome I B.
China (Fukien), Hsinghua III Ho. See 1809, July 30
and Aug. 7.
1811
             Feb. 18
1811
1811
             Mar. 18
1811 May 30-Aug. 11 China (Shantung), Wenteng in Tengchou Fu II
1811 July 15 Italy, Appennines of (Modena) I B.
                                                                                                   Ho.
                             Austria, Styria, Carinthia, Krieglach in the Mürz I Ra. Philippines, S.E. Luzon (Camarines and Albay), Nueva Caceres, Albay III S.M.
U.S.A. (Mississippi, Ohio, Arkansas, Tennessee, Kentucky, Missouri, Indiana, Virginia, N. and S. Carolina,
             Oct.
1811
1811
             Oct.
1811
            Dec. 16
                                     Georgia and Florida), Vincennes, Cincinnati, Nashville, New Madrid, Cairo II M. F.R. gives III
                                     The earthquake continued until 1813.
                             France, Beaumont, Vaucluse, Avignon, Apt and Marseilles II M.
1812
            Mar. 19
                              Italy, Rome
1812
            Mar. 22
                                                     B.
                             Venezuela and Colombia, Caraccas and the surrounding country, Varinas, Maracaibo, particularly in the high mountains of Mérida, Carthagena and in the
            Mar. 26
1812
                                                       M. & O.D.
                                     Andes III
            May.
                             South Wales, also Gloucester, Neath I M. & W.
1812
                             France, Nantes and a large part of Loire Inférieure
Germany, Zulpich near Cologne I M.
U.S.A., Southern California I F.R.
1812
            May
            May 13
1812
1812
            May
                             Germany, Kandern and Müllheim, in the Upper Breisgau
1 M.
            July 17
1812
                             Italy, Poppiano, S. Quirico and neighbourhood (Florence) I B.
1812
            Sept. 11
1812
            Sept. 15
                              Italy, Ischia and Naples I
                                                                     C.V.
-1812
            Oct. 8
                              U.S.A. (California), Santa Barbara, San Juan Capistrano
                                     II to III F.R.
1812
            Oct. 21
                             U.S.A., California, San Juan Capistrano
Italy, Treviso I B.
                                                                                       11
1812
            Oct. 25
1812
             Nov. 11
                              West Indies, Jamaica, Kingston
1812
                              Japan, Tokio, Kanagawa III Mi.
            Dec.
                     7
                             U.S.A., California, San Diego to Purisima
U.S.A. (Alaska), Atka III F.R.
U.S.A., California, San Fernando I F.R.
1812
            Dec.
                     8
1812
1812
            Dec. 21
        Feb. 1 & 2
May 30
Sept. 21
Sept. to Oct.
China (Kuangtung), Hsinhui, Hsiangshan in Kuangchou
Fu I Ho.
1813
1813
1813
1813
                             U.S.A., California, Santa Clara Valley? II F.R.
1813 or 1815
                             Greece, Epirus, Janina to Corfu, Sorachovitzas II
1813
            Dec.
                                                                                                      M.
            Jan. 12
                             China (Kansu), Chanyuan in Chingchou I Ho.
1814
1814
            Feb.
                             Peru, Piura I H.J.
Philippines, S.E. Luzon (Albay)
                     1
1814
            Feb.
                             Italy, Leghorn and Pisa I B.
Austria, Innsbruck I M.
China (Yunnan), Yun in Shunning Fu I Ho.
Siberia, Irkutsk, Tunkinsk Fort and surrounding villages
III M. & O.
1814
            April
                     3
            April 28
1814
1814
         June to July
1814
            Sept. 3
                             France, Lyons and from Macon to Vienne II M. China (Fukien), Hsinghua III Ho. Siberia, Irkutsk and felt as far as Troitskosark, 346 miles
1814
            Nov. 6
            Nov. 24
1814
1814
            Dec. 17
                             distant I M
Japan (Kaga) III
                                                     M. & O.
                                                          0.
1815
            Jan.
                             Mexico (Oaxaca), Mexico State, Puebla and Vera Cruz
II O.B.
1815
            May
                     3
                             Formosa, Giran
                                                    III
1815
            July
                                                           _{
m H.}
                             Italy, Pisteia I B.
China (Chihli), Tungkuang, Hochien Fu
1815
            Aug.
            Aug. 5-6
1815
                                                                                           Ho.
                             China (Fukien), Futing in Fuchou Fu III
Formosa, Tamsui II H.
            Oct. 14
Oct. 14
Oct. 21
1815
1815
                             China (Shensi), Chishan in Fenghsiang, Fuping in Hsian
1815
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Fu; (Honan), Hsiuwu in Huaichang Fu III Ho.

A.D.	Oct to Nov	China (Kangu) Changuan in Chinash I II.
1815 1815	Oct. to Nov. Nov. 16	China (Kansu), Chenyuau in Chingchou I Ho. China (Honan), Sheuchou and other places III Pa. See above.
1816	May 26	India, Gungootri, Upper Valley of Ganges I Ol.
1816	Aug. 13	India, Gungootri, Upper Valley of Ganges I Ol. Scotland, Inverness I M. & W.
1816		Formosa, Giran II H.
1817	Jan.	Italy, Sciacca (Girgenti) I B.
1817	Mar. 18	N. Spain, Santander to Tarragona, Rioxa (Castille), Vis-
		caya (Arragon, Catalonia), Arnedo, Arnedillo and Logrono II M.
1817	April	China, Changli on the borders of Szechuan; 11,000 houses destroyed III M.
1817	April 4	Mexico, Oaxaca, Tlaxcala, Canada, Puebla and Vera Cruz I O.B.
1817	Oct. 5	U.S.A., Massachusetts, Woburn I F.R.
1818	Feb. 20	Italy, Aciconsolazeone, Aci Platani and throughout
1010	T1 1 00	(Catania) III B.
1818	Feb. 23	Italy, Nice, Portomaurizio, and Western (Liguria) I B.
1818	Feb. 23	France, Marseilles, Draguignan, Orelle in Savoy, Antibes and Vence II M.
1818	Feb. 28	and Vence II M. Italy, Val di Noto (Messina) I B.
1818	May 31	Mexico, Mexico and eastwards to Vera Cruz, Morelos,
1010	May 01	Guerrero, Jalisco II O.B.
1818	Sept. 8	Guerrero, Jalisco II O.B. Italy, Petralia, Polizzi, and other places in the mountains of Le Madoine (Pologno), II B
1818	Nov. 20	of Le Madoine (Palermo) II B. West Indies, Cap Henri in St. Domingo II M.
1818	Dec. 9	Italy, Parma, Reggio (Emilia), Modena, etc. I B.
1818		Philippines, N.W. Mindanao, Dapitan I S.M.
1819	Jan. 8	Philippines, N.W. Mindanao, Dapitan I S.M. Italy, Port Mourizio, San Remo, and elsewhere in Western (Liguria) I B.
1819	Jan. 29	Caucasia, Tiflis I M. & O.
1819	Mar. 12	Mexico, Órizaba in Vera Cruz, Puebla I O.B.
1819	Mar.	Morocco, Oran and Mascara II M.
1819	April 3, 4, & 11	Chile, Copiapo III M. & Mon.
1819	May 3	Mexico, Oaxaca II O.B.
1819	May 26	Italy, Corneto (Latium) I B.
1819	June 16	India, Cutch and other parts of N. India, Ahmedabad, Poonah, and in Bhooj 2,000 perished III M. & Ol. Japan, Kioto; (Ise, Mino) III Mi.
1819	Aug. 2	Narway amagidly at Saltdal and (Haladand Norland)
1819	Aug. 31	Norway, especially at Saltdal and (Helgeland, Norland), Hemnaes, at Frosten and Drontheim I M.
	Nov. 29 to	Hemmaes, as Prosectional Distriction 1 111
1819	Dec. 3	China (Shantung), Huang in Tengchou Fu II Ho.
1820	Jan.	Hungary, Mur I M.
1820	Feb. 21	Greece, St. Maura II M.
1820	Mar. 7	Siberia, Irkutsk and around the <i>Turansk</i> frontier post I M. & O.
1820	May 4	Mexico, Acapulco, also Chilapa, Mochitlan, and other
		places in Guerrero, Oaxaca, Puebla, and vera Cruz;
		places in Guerrero, Oaxaca, Puebla, and Vera Cruz; origin coast of Acapulco and S. Marcos III O.B. & B.O.
1820	Oct. 19	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M.
$1820 \\ 1820$	Oct. 19 Dec. 29	origin coast of Acapulco and S. Marcos III O.B. & B.O.
	Dec. 29	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Cognimbo II M.
1820 1820 1821	Dec. 29 Dec. 29 Jan. 6	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante. Lala in the Morea; sea waves III M.
1820 1820 1821 1821	Dec. 29 Dec. 29 Jan. 6	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valnaraiso I Mon.
1820 1820 1821	Dec. 29	origin coast of Acapulco and S. Marcos 111 O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on
1820 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5.
1820 1821 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5.
1820 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Ricti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana III H.J.
1820 1821 1821 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21 May 13 July 10	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Rieti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana III II.J. & Mon.
1820 1821 1821 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21 May 13	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Rieti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana & III H.J. & Mon. Italy, Catanzaro, Nicastro (Calabria) II B.
1820 1821 1821 1821 1821 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21 May 13 July 10 Aug. 2 & Sept. 12 Sept. 17	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Rieti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana & III H.J. & Mon. Italy, Catanzaro, Nicastro (Calabria) II B.
1820 1821 1821 1821 1821 1821 1821 1821	Dec. 29 Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21 May 13 July 10 Aug. 2 & Sept. 12	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Rieti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana III II.J. & Mon. Italy, Catanzaro, Nicastro (Calabria) II B. Moldavia, Jassy I M. Russia, Kief, Nikolaief, Jassy in Moldavia, Tiflis in
1820 1821 1821 1821 1821 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21 May 13 July 10 Aug. 2 & Sept. 12 Sept. 17 Nov. 17	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Rieti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana III H.J. & Mon. Italy, Catanzaro, Nicastro (Calabria) II B. Moldavia, Jassy I M. Russia, Kief, Nikolaief, Jassy in Moldavia, Tiflis in Georgia I M.
1820 1821 1821 1821 1821 1821 1821 1821	Dec. 29 Jan. 6 Jan. 18 Feb. 12 Mar. 21 May 13 July 10 Aug. 2 & Sept. 12 Sept. 17	origin coast of Acapulco and S. Marcos III O.B. & B.O. Honduras, Omoa, St. Pedo II M. Greece, Morea and Ionian Isles, especially in Zante II M. Chile, Coquimbo II M. Greece, Zante, Lala in the Morea; sea waves III M. Chile, Valparaiso I Mon. China (Chihli), Paoan in Hsuanhua I Ho. Also on Mar. 13 and Aug. 5. Italy, Rieti (Umbria) I B. Mexico, Oaxaca, Puebla, Vera Cruz I O.B. 5h. 42m., G.M.T. Peru, Arequipa, Camana III II.J. & Mon. Italy, Catanzaro, Nicastro (Calabria) II B. Moldavia, Jassy I M. Russia, Kief, Nikolaief, Jassy in Moldavia, Tiflis in

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A.D.
                          Japan (Izu) III O.
1821
18\bar{2}\bar{1}
           Dec. 13
1822
        Jan. to Feb.
                          China (Kiangsi), Kuanghsin Fu, Huchang in Kanchou Fu
                                     Ho.
                          India, Madras, Chittore, Vellore I Ol.
Japan, Oshiu, Tokio III Mi.
Italy, Chambery (Savoy) I B.
Italy, Nicosia and neighbourhood (Catania) I B.
1822
           Jan. 29
1822
           Feb. 7
Feb. 19
1822
           April 6-10
1822
1822
           May
                  7
                          Costa Rica, Carthago III M. & O.D.
1822
           June 21
                                                            III
                                                                   Ho.
                          China (Fukien), Hsinghua
           July 14
July 29
Aug. 13
                          Italy, Belvedere, Umbriatico, Cotrone in Catanzaro I B. Spain, Granada I M. Asia Minor, Aleppo, Antioch, Latakia, and Djesr-Darjua,
1822
1822
1822
                                 Beyrout, Alexandria III M.
                          Asia Minor, Aleppo, Damascus, and the Island of Cyprus; altogether 20,000 lives were lost 111 M.
1822
           Sept. 5
                           Chile, Copiapo and Coquimbo III M. & P. Mon. gives
1822
          Nov. 4 & 5
                                 H
                           3h. 1m., G.M.T., 20th. Chile, Argentina, Concepcion,
1822
        Nov. 20 & 25
                                 Mendoza, San Juan, Valparaiso, Melipilla, Quillotoa, Mepel, Casabianca, Santiago; earthquake extended from Copiapo to Valdivia 900 miles; coast
                                  elevated along a length of 100 miles; sea waves III
                           M., P. & Mon.
West Indies, Island of Grenada I M.
 1822
            Dec.
 1823
                           Spain (Murcia and Valentia), Orihuela, Carthagena and
            Jan. 10
                                  Alicante
                                             \mathbf{II}
                                                    M.
 1823
           Feb.-Mar.
                                            Ho.
                           Formosa
                                       I
                           Italy, Naso, Palermo and North coast of Sicily
 1823
            Mar.
                    5
                                                                                      III
                    7
                           Central America, Panama, Cartago, Monkey Point, North
 1823
            May
                                  of Greytown, Darien III Mon.
                           Turkey, Souli? I
 1823
            June 19
                                                   M.
                           Asia Minor, Scala-Nova, West of Smyrna II M.
 1823
            Aug. 25
                           China (Fukien), Hsinghua Fu III Ho.
Philippines, E. Luzon, along eastern mountain range
(Sierra Madre), and Southern Caraballo II S.M.
 1823
            Nov. 17
 1824
            Jan .
 1824
            Feb. 21
April 10
                           Greece, Ionian Island, Island of St. Maura I M.
 1824
                            West Indies, Jamaica, Kingston I P. West Indies, Island of St. Thomas I
 1824
            April 20
                                                                            M.
                            Persia, Shiraz and Kazrun III M.
China (Kuangtung), Kuangchou Fu I
 1824
            June 23
 1824
           July-Aug.
            Aug. 12
Sept. 29
                            Italy, Selvapiana and neighbourhood (Romagna)
 1824
                                                                                              В.
                            Philippines, East part of S. Luzon (Tayabas, Rizal,
Laguna and Nueva Ecija) III S.M.
 1824
                         Philippines, S. Luzon, Manila, and neighbouring provinces
 1824
            Oct. 26
                                  III S.M.
                            Italy, Rossano, Corigliano and Longobucco (Cosenza) II B.
 1824
           Dec. 10-11
                                       В.
                                                     II
  1825
          Jan. 18 & 21
                            Iceland, Reykjavik
                                                           Th.
                            Greece, Island of St. Maura, Ionian Isles and Prevesa in
  1825
            Jan. 19
                                   Albania III M.
  1825
             Jan. 24
                            Mexico, Oaxaca I
                                                     0.B.
  1825
             Mar.
                            Algiers and the country lying towards the Canary Islands,
                                   Blidah III M.
                            Philippines, Guam Island in the Ladrones Island II
  1825
             April
             Sept. 20
  1825
                            West Indies, Trinidad II P. & O.D.
  1825
             October
                            Persia, Shiraz II M.
                            Italy, Isernia (Campobasso) I B.
China (Hunan), Changsha Fu, Linwu in Kueiyang, Heng-
chou Fu, Yungchou Fu II Ho.
             Oct. 27
  1825
  1825
             Dec.
                     5
             Jan. 26
  1826
                             Albania, Prevesa I M.
                            Italy, Tito, Sasso, Pietrafesa and elsewhere in the (Basili-
  1826
             Feb.
                                   cata) II B., Granada I
  1826
             May 17
                            Spain, Granada
                                                      Μ.
                             Colombia, Santa Fé-de-Bogota III
  1826
             June 17
                            West Indies, Jamaica, Montego Bay
  1826
             Aug. 18
                                                                               M.
             Sept. 18
Oct. 26
Oct. 29
Jan. 16
                            West Indies, Cuba, Santiago II
Italy, Manduria (Lecce) I B.
India, Nepal, Katmandu, Patun
  1826
  1826
  1826
  1827
                             China (Fukien), Hsinghua III Ho.
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A.D.	77.1.26	CILL (TT 1) TO
1827	FebMar.	China (Hupeh), Yunyang I Ho.
$\frac{1827}{1827}$	April 11 April 17	Italy, Ischia I C.V.
1827	May	Austria, Croatia, Karlstadt I F. Siberia, Kirensk in Irkutsk Govt. and in Petropavlovsk
1011		village, 53 miles from Kirensk I M. & O.
1827	May 30	Peru, Lima II M.
1827	June 12	Mexico, Tehuacan II M.
1827	June	Behring Sea, Commander Islands III M. & O. Asia Minor, Tokat III M.
$1827 \\ 1827$	June or July	Asia Minor, Tokat III M.
1827	Aug. 7 Sept.	U.S.A. (Indiana), New Albany on the Ohio I M. Formosa, Shoka I H.
1827	Before Sept. 26	India, Fort Kolitaran near Lahore; 1,000 perished III
		M. & Ol.
1827	Oct. 21-23	Caucasia, Tiflis, Stavropol I M. & O.
1827	Nov. 16	Colombia, Santa Fe-de-Bogota to Pasto, Neiva, Popayan,
		Parace, valley of Magdalena, Bogota III M.
1827	Nov. 30	& O.D. West Indies Islands of Mantinious Guadeleune Wasis
1021	1101.00	West Indies, Islands of Martinique, Guadeloupe, Marie Galante, Antigua, St. Domingo II M.
1827	Dec. 13	Portugal, Lisbon 1 M.
1828	Feb. 2	Italy, Island of Ischia II B.
1828	Feb. 4	Mexico (Tabasco), and Villa Hormosa III M.
1828	Feb. 19	Iceland, Fljotshlid and Landeyjar; many farms fell II
1828	Mar. 7-19	Th. Sibaria Inkutak Thaitakagarah Miahka Thamas Canth
1040	Mar. 1-15	Siberia, Irkutsk, Troitskosavsk, Kiakhta, Turansk frontier post III M. & O.
1828	Mar. 12	Italy, Palmi (Reggio di Calabria) I B.
1828	March	Mexico, Tacotalpa (Tabasco) I O.B.
1828	Mar. 30	Peru, Arequipa, Huanuco, Truxillo, Lima, Callao II M.
1000	A	& H.J.
$\begin{array}{c} 1828 \\ 1828 \end{array}$	April 11 or 14	Italy, Meldola, Galcata, Bertinoro (Romagna) I B. Italy, Urbino I B.
1828	May 18	Italy, Marsala (Trapani) I B.
1828	June 6	India, Cashmir; 1,000 killed III Ol.
1828	June 15	Asia Minor, Smyrna I M.
1828	Aug. 9	Caucasia, Shusha, Alt-Shemaka, Mugaly III M. M.
1000	Anna Cara	& O. give Aug. 14.
1828	AugSept.	China (Chihli), Wuchiao, Tungkuang in Hochien Fu I Ho.
1828	Sept. 14 & 15	Spain (Murcia, Valencia), Lorca, Orihuela, Torrevieja, La
		Mata, Guardamar II M.
1828	Oct. 1	Canary Islands, Island of Gran-Canaria I M.
1828	Oct. 5-8	Italy, Forli (Emilia) I B.
$\frac{1828}{1828}$	Oct. 9 Oct. 29	Italy (Voghera and Bobbio), north of Genoa II B.
1828	Nov. 9	India, Nepal, Katmandu, Patna II M. 10h. 30m., G.M.T., Philippines, S. Luzon, Manila and
1020		neighbouring provinces II S.M.
1828	Nov. 16	6.30 p.m., Colombia, Bogota, Pasto, Popayan III O.D.
1828	Dec. 18 Dec. 29	Japan (Echigo); sea waves at Kiushu III Mi.
1828	Dec. 29	Celebes, Macassar, Boelekomba with sea waves II M.
$\frac{1829}{1829}$	May-June Feb. 21	Italy, Albano and other places in (Latium) I B. Throughout the South of Iceland and near Hecla II M.
1040	Feb. 21	Throughout the South of Iceland and near Hecla II M. & Th.
1829	Mar. 8	Siberia, Irkutsk from Kiachta to Nizhni-Udinsk, Troit-
		skosarsk I M.
1829	Mar. 21	Spain (Murcia, Valencia), Valley of the Segura, Guardamar,
1000	34	La Mata, Torrevieja III M.
1829	May 5	Turkey, coast of Macedonia and Thrace, Salonica to
1829	May 23	Constantinople, Drama, Kawala and Seres III M. Turkey, Constantinople and Scutari I M.
1829	Aug. 4	Hungary, especially at Nagy-Karoly, Endred, Dengeley,
	0.	Hungary, especially at Nagy-Karoly, Endred, Dengeley, Zriny and Portelek II M.
1829	Sept. 6	Italy, Cremona I B.
1829	Sept. 26	19h. 12m., G.M.T., Chile, Valparaiso, Santiago, and Casa Blanca I P. & Mon. M. gives Oct. 26.
1829	Oct. 1	Chile Sentiago I Mon. M. gives Uct. 20.
1829	Nov. 18	China (Anhui), Wuho in Ssuchou: (Shantung), Chining:
2020	11011 10	Chile, Santiago I Mon. China (Anhui), Wuho in Ssuchou; (Shantung), Chining; (Kiangsu), Shuchou Fu III Ho. China (Shantung), Linchu in Chingchou Fu, Tengchou Fu,
1829	Nov. 19	
		Laichou Fu; (Chihli), Tiensin III Ho.

30	chililo	or profit a mining of the
A.D.		
1829	Nov. 24	China (Shantung), Changching in Chinan Fu III Ho.
1829	Nov. 26	S.W. Russia, Roumania, from Transylvania to Kief,
1020	1101. 20	Bucharest, Kishinev, Reni, Titaspol and Cherson
		III M.
1829	Nov. 30	Siberia, Barnaul and Suzun Smelting Works I M. & O.
1830	Jan. 18	9h., G.M.T. Philippines, S. Luzon (Rizal, Tayabas,
1000		Laguna, Cavite, Batangas), Manila III S.M.
1830	Jan.	Mexico, Oaxaca, Canada, and Mixteca I O.B.
1830	Mar. 9	Caucasia, Kizlar on the Terek, Mozdak, Ekaterinodar, and
		still more violently in the village of Andreief, also
		felt at Tiflis, Fort Bournoi, Tarki III M. also M.
		& 0.
1830	April 12	Guatemala, the villages of Amatitlan, Pinula and Petassa
	_	or Petapa III M.
1830	April 14	West Indies, St. Domingo I P. Guatemala III M. Continuation of April 12.
1830	April 23	Guatemala III M. Continuation of April 12.
1830	May 9	Persia, Teheran I M.
1830	May 12-22	China (Chihli), Paoting Fu, Shunte Fu, Tiensin Fu; (Shantung), Chinan II Ho.
		(Shantung), Chinan II Ho.
1830	May-June	China (Kiangsu), fisuchou Fu; (Chinii), Faoting Fu
1000	Term : 1	Ho.
1830	June 1	China (Chihli), Chengting Fu III Ho. Austria, Styria, Semmering I Ra. China (Chihli), Hokien Fu, Kaichou in Taming Fu;
1830	June 8	Austria, Styria, Semmering 1 Ra.
1830	June 12, also June 16 &	China (Chihli), Hokien Fu, Kaichou in Taming Fu; (Honan), Nanyang Fu; also (Shuntung, Anhui, and Kiangsu) III Ho. See entries from May 12.
	July 20	and Kiangsu) III Ho. See entries from May 12.
1830	July 29 June 25	Caucasia, Unezapnaya, 48°10N. 46°40E. II M. & O.
$1830 \\ 1830$	June 26	Austria, Styria, Mürztal, Leoben, Bruck, Graz I Ra.
1830	July 1	Hungary, Huszt, Maramarosch Sziget and the mines of
1000	oury r	Sugatagh and Slatina I M.
1830	Aug. 19	Japan, Kioto III Mi.
1830	Dec. 4	Russia, Anana and Taman Peninsula I M. & O.
1830	Dec. 31	India, Chittagong I Ol.
1831	Jan. 2	India, Chittagong I Ol. Italy, Lagonegro, Lauria in the (Basilicata) II B.
1831	JanFeb.	Italy, Milazzo (Messina) I B.
1831	Feb. 23 & 27	China (Chihli), Paoan in Hsuanhua Fu I Ho.
1831	May 19	Siberia, Turkinsk mineral springs, near Lake Baikal I M. & O.
1831	May 26	Italy, Castellare, S. Remo and elsewhere on the coast of
1001	T T 1	(Liguria) II B.
1831	June-July	Italy, Sciacca (Girgenti) II B. West Indies, Bridgetown in Barbadoes and in Jamaica,
1831	Aug. 11	west indies, Bridgetown in Barbadoes and in Jamaica,
		especially at Antigua, St. Vincent, Dominica, Guadeloupe and Barbadoes; also hurricane III M.
		loupe and Barbadoes; also hurricane III M. & P.
1831	SeptOct.	China (Kiangsu), Kiangning Fu, Hsuchou Fu, Chenchiang;
1001	Бери-Оси	(Anhui), Ssuchou II Ho.
1831	Sept. 11	Italy, Reggio (Emilia), Parma and Modena I B.
1831	Oct. 9	Italy, Reggio (Emilia), Parma and Modena I B. 2h. 16m., G.M.T. Peru, Arica, Arequipa II H.J.
		& Mon.
1831	Nov. 13	Japan, Kioto; (Hizen) II Mi.
1831	Dec. 3	Japan, Kioto; (Hizen) II Mi. West Indies, Trinidad, St. Christopher II P.
1831-	32 OctFeb.	Italy, Foligno and other towns in (Perugia) II B.
1831		India, Peshawar and Valley of Indus I Ol.
1832	Jan. 22	Central Asia, Bokhara, Kokand, Badakshan and Upper Oxus III M. & O.
4000	77.1	Oxus III M. & O.
1832	Feb. 21	Italy, Pozzuoli and neighbourhood of Naples I B.
1832	Feb. 21 Mar. 8	N.W. India, Lahore, Valley of Badakshan III Ol.
1832	Mar. 8	Italy, Valley of the Tacina and other parts of Cotrone
1832	Mar. 13	and adjacent parts of (Calabria) III B. Italy, <i>Reggio</i> (Emilia), Modena, Parma II B.
1832	Nov. 24	Italy, Nicolosi, Belpasso, Milo and near Etna II B.
1832	Nov. 24	Formosa, Giran III H.
1833	Jan. 19	Italy, Monteparano (Lecce) I B.
1833		West Indies, Antigua, St. Kitts II O.D.
1833	April 25	15h. 16m., G.M.T. Chile (Coquimbo), Huasco II Mon.
	_	& P.
1833	Aug. 26	India, Nepal, Calcutta, Agra, Lucknow, Tirhoot, Purneah,
		Patna, Buxar, Allahabad, Monghyr, Katmandu and
		Lhasa III M. & Ol.

A.D.		
1833	Sept. 6	China (Yunnan), Yunnan Fu, Linan Fu, Chengchiang Fu,
		Chuching Fu and all (Yunnan); it continued Nov.
1		to Dec. III Ho.
1833	Sept. 18	10h. 31m., G.M.T. Peru and Chile, Arequipa, Arica and
		Tacna II Mon. & H.J.
1833	Dec. 4	Mayico Oayaca Vone Come De 11
1000	-	O.B. Gazaca, vera Cruz, Puebla and Guerrero I
1833	Dec. 7	Japan (Sado); sea waves II O.
1833	Dec.	Formosa II H.
1834	Jan. 22	Peru, past St. Marthe III P.
1834	Feb. 14	Italy, Pontremoli, Albereto and elsewhere in (Massa) II B.
1834	Feb.	Russia, Anapa, Bugas and shore of Abasia I M. & O.
1834	Feb.	Japan, Yezo (Ishikari) III Mi.
1834	May	
1834	May 16	Philippines, Guam Island in the Ladrones III S.M.
1834	May 23	Japan (Suruga, Kai) II Mi. Asia Minor, Palestine, Jerusalem I M.
1834	June 18	Asia Minor, Palestine, Jerusalem I M.
1834	July 10-22	Greece, Island of Cephalonia II M. China (Honan), Changte Fu, especially in the district of
1004	July 10-22	Wyngang, Changte Fu, especially in the district of
		wungang, westwards to (Shansii, northwards to
		(Chihli), and east to (Shantung) III M. & O. O. gives June 28 to July 19; not in list by Ho.
1094	Turles	Objective June 28 to July 19; not in list by Ho.
1834	July	Chile, Ica, no details ? I Mon.
1834	Oct. 4	Italy, Bologna I B.
1835	Jan. 6	Mexico, Acapulco III M. Not given by Bo. or O.B.
1835	Feb. 6	Italy, Vicchio, Mugello (Tuscany) I B.
1835	Feb. 20	16h. 26m., G.M.T. Chile, Santiago, Concepcion, Talca-
		nuano and Chittan; the earthquake was felt from
		Copiapo to Chiloe, and from Juan Fernandez to
1005	T3 1 00	Mendosa; sea waves 111 M., Mon. & P.
1835	Feb. 26	huano and Chillan; the earthquake was felt from Copiapo to Chiloe, and from Juan Fernandez to Mendosa; sea waves III M., Mon. & P. Colombia, Venezuela, Haiti III O.D. Italy. Boyes (Cunco) I R.
1835	Mar. 23	
1835	April 14	Behring Sea, Pribylof Islands III M. & O.
1835	April 21	Russia, Bessarabia and Bucharest I M. & O.
1835	July 20	Russia (Livonia), Lemberg I M. & O.
1835	July 20 Aug. 19 Aug. 23	Japan (Mutsu, Memuro); sea waves III O.
1835	Aug. 23	Asia minor, Kaisarien and the surrounding country.
1000	0.1.10	Kumetri III M. Italy, Castiglione, S. Pietro in Guarano, Zumpano and
1835	Oct. 12	Italy, Castiglione, S. Pietro in Guarano, Zumpano and
1000	т	other places in (Cosenza) III B.
1836	Jan. 5	Philippines, Mindanao Islands, Illana Bay (Zamboanga,
1000	T 0.4	Cotabato) I S.M.
1836	Jan. 24	India, Chandernagore, Sook-Sagur, also Kabul I Ol.
1836	April 2	U.S.A., Alaska, Pribyloff Islands III F.R.
1836	April 24	Italy, Rossano, Crosio, Cropalate and other places in (Cosenza) III B.
1000	Mr. 0.4	(Cosenza) III B.
1836	May 3-4	Italy, Reggio (Calabria) I B.
1836	June 12	Italy, Liedolo, Fonte, S. Ilaria, Asolo (Venetia) II B.
1836	July 3, June?	13h. 16m., G.M.T. Chile, Cobija; sea waves I Mon.
1836	July 8	Italy, Craco (Basilicata) I B.
1836	Aug.	U.S.A., Alaska, Pribyloff Islands III F.R.
1836	Aug. 30	Mexico, Oaxaca I O.B.
1836	Nov. 20	Italy, Lagonegro (Basilicata), Montesano in (Salerno) and
1005	- T - T	other places II B. Asia Minor, Syria, from Beyrout, Damascus to Sahpit, Jaffa, Acre, Tiberias, Rani near Cana III M.
1837	Jan. I	Asia Minor, Syria, from Beyrout, Damascus to Sahpit,
1007	M 14	Jaya, Acre, Tiberias, Rani near Cana III M.
1837	Mar. 14	Austria, Styria, Semmering in Murz, Reichman, Ebricons-
1005	35 10	dorf I Ra.
1837	Mar. 18	Greece, Hydra, Spezia, Paros, and Santorin, the centre was
1007	4. 11.11	at Methana II M.
1837	April 11	Italy, Uglian Caldo, Argigliano, Montesiore and other
1005	A	places in the Alpi Apriane (Tuscany) II B.
1837	April-May	Italy, Villa, S. Germano, Montecassino (Caserta) I B.
1837	Aug. 2	West Indies, St. Thomas I O.D. & P.
1837	Sept. 6	West Indies, Barbadoes I P.
1837	Nov. 7	12h, 51m., G.M.T. Chile, Valdivia III M.
1837	Nov. 22	Mexico, Acapulco (Mexico), Oaxaca, Puebla, Tlaxcala, Vera Cruz, Queretaro, San Luis Potosi, Michoacan,
		vera Cruz, Queretaro, San Luis Potosi, Michoacan,
1000	T 00	Jansco, Collina, Guerrero III O.B. Bo. gives I
1838	Jan. 23	S.W. Russia (Wallachia, Moldavia, Transylvania, Hungary)
		and Balkan Peninsula III M. & O.

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A.D.
      1838
                  Feb. 14
                                  Italy, Foligno, Spoleto and neighbourhood in (Umbria)
                                            В.
      1838
                  Mar. 17
                                  England, Shrewsbury
                                                                1
                                                                     Μ.
      1838
                                  France, Meandre in the Isère
               May 22
June 11 & 12
                                                                          I
                                                                               M.
                                  Iceland, north coast, Hunafloi, Skajalfandi, Southland,
Eyrarbakki III Th.
Italy, Pessaro (Marches) I B.
      1838
      1838
                  June 23
                                  Italy, S. Jean de Maurienne and other places in the Vallev
      1838-9
                                         of the Arc (Savoy) I B.
      1839
                                  China (Yunnan), Tengchuan in Tali Fu, Langchiung III
               Jan. to Feb.
                                         Ho.
                                  China (Kiangsi), Pengtsa in Chiuchiang Fu I Ho.
      1839
               Feb. to Mar.
                                  West Indies, Island of Martinique, also in Guadeloupe and St. Lucia II M. & O.D.
      1839
                  Jan. 11
                  Jan. 17
Jan. 21
Mar. 22
      1839
                                  Turkey, Salonica
                                                          I M.
                                  West Indies, St. Lucia, Martinique I P.
      1839
                                  Salvador, San Salvador III Mon.
India (Burmah), Amarapoora, Ava
Peru, Ica I H.J.
      1839
                  Mar. 23
      1839
                                                                                 HI Ol.
      1839
                  June 10
                                  Russia, Village of Fedorovka, Saratof Government
M. & O.
      1839
               June 28 & 29
                                                                                                            П
      1839
              Aug. 11 & 16
                                  France, Annecy in (Savoy)
                                                                       I M.
      1839
                  Aug. 18
                                  Siberia, Ir & O.
                                             Irkutsk and along the Selenga River III
                                                                                                           M.
               Aug. 27 & in
      1839
                                  Italy, Reggio (Calabria) I
                                                                         В.
                    1840
      1839
                                  Salvador, San Salvador II
                  Oct. 1-10
                                                                         Mon.
      1839
                  Oct. 12
                                  China (Kiangsu), Changchou Fu; (Chehkiang), Chiahsing
                                         Fu I Ho.
                                  Scotland, Comrie, Perthshire I M. & W.
China (Chehkiang), Huchou Fu; (Kiangsu), Chentse in
Suchou Fu, Chingpu in Sungchiang Fu, Chenchiang
Fu II Ho.
      1839
                  Oct. 23
                  Oct. 29
      1839
                                  France, in the Pyrenees I M.
China (Chehkiang), Wuning in Nanchang Fu; (Hupeh),
Kuangchi in Huachou Fu I Ho.
      1840
                  Jan.
                          5
      1840
               May to June
                                  Armenia, the whole district of Mount Ararat
      1840
                June 20-28
                                                                                                \mathbf{II}
                                  Armenia, Depts. of Surmala, Sharum 39°45N. 45°E. and
Nakhichevan 39°12N. 45°26E., Talysh, Ordubat
      1840
                 July 2
                                         Nakhichevan 39°12N.
district III M. & O.
                                  Armenia, district of Mount Ararat III M.
Armenia, Ararat and Shahriar III M. & O. See July
2. This and the three preceding entries may be
      1840
                July 6 & 8
July 27
      1840
                                          components of one megaseism.
                  Aug. 27
Oct. 28
Nov. 29
                                  Austria, Karlstadt, Laibach, Agram I
Greece, Island of Zante, Skulikado III
      1840
                                                                                       F.
M.
      1840
      1840
                                  Armenia, Nakhichevan and the neighbouring districts,
                                         more violent in Shahriar II M.
                                  Formosa, Unrin
      1840
                  Nov.
                                                         III H.
2 1840
                                  Philippines, S.E. Luzon (Sorsogon and Masbate) III S.M.
                                  Italy, Reggio (Calabria) II B.
      1841
                                  Mexico, Isthmus of Tehuantepec, Oaxaca
      1841
                 Feb. 10
                                                                                           H
                                  Italy, San Marco in Lamis and other places in (Foggia)
B.
                Feb. 21-22
      1841
                                                                                                            II
      1841
                  Mar. 6
                                  Italy, Casamicciola (Ischia)
                 Mar. 20
April 3
                                  Italy, Lipari Islands I B.
      1841
                                  Denmark (Jutland) and (Schleswig Holstein) II M. Scotland (Argyle), Oban I M. & W. Hungary, Sea of Marmora to Altendorf in Galicia, Menhard and Tatra I M. Armenia, Village of Kibrakh 39°24N. 45°9E., also in
      1841
                  April 21
      1841
                  April 30
      1841
                 May 18
      1841
                                  Armema, vinage of Klorakn 39<sup>-24</sup>N. 45<sup>-9</sup>E., als
Nakhichevan III M. & O. M. gives May 5.
Russia, Petropavlosk and Ostrowneje II M. & O.
Japan (Suruga) II O.
Italy, Torre Passeri in the (Abruzzi) I B.
Italy, Taranta, Tarricelli, and Palena in (Chieti) II
      1841
                  May 18
      1841
                  May
                  June 8-9
      1841
      1841
                 June 10
              June 14 & 15
                                  Azores, Island of Terceira II M.
      1841
      1841
                                  Austria, Vienna, more severe at Neustadt, slight at Gratz I M.
                 July 13
      1841
                  July 30
                                  Scotland (Perthshire) I M. & W.
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A.D.
                                     n. local. Costa Rica, Cartago, Turodo, Tres-rios,
Parowso, Ujamès, Malina, San Jose to Heredia and
1841
             Sept. 2
                             6 a.m. local.
                             Alajuela; also strongly felt in the U.S.A. III O.D. Armenia, Nakhichevan and neighbourhood I M. & O.
1841
             Sept. 22
1841
             Oct. 15
                             Italy, Sanguinetto and neighbourhood in (Verona) I B.
1841
             Oct.
                    23
                             Hungary, Comorn II
Germany, Cologne I
                                                             M.
             Oct. 24
1841
                                                             M.
             Dec.
1841
                    2 .
                             France (Savoy), Chambéry
                                                                    I B.
1841
             Dec. 25
                             Armenia, Anapa, Nikolaievsk and Vitaz I
                                                                                         M. & O.
                             Caucasia, Baku and neighbouring villages III M. & O. China (Kiangsu), Sungchiang Fu, Tanyung in Chenchiang
1842
                     2
             Jan.
1842
                   11
            Jan.
                             Fu; (Chehikang), Chiahsing Fu I Ho.
North-west India, Kabul, Jellalabad, Peshawar III Ol.
West Indies, St. Domingo, especially at Cape Haytien,
1842
             Feb. 19
                                                                                                III OL
1842
            May
                                     also at Jamaica, Porto-Rico, and almost all the West
                                     Indian Isles
                                                      II M.
                             Hungary (Zala), Gross-Kanischa or Nagg-Kanisa I M.
China (Kiangsu), Tanyang in Chenchiang Fu; (Hunan),
Liuyang in Changsha I Ho.
1842
            Sept.
1842
         Nov. to Dec.
                                                                   I Ho.
1842
            Dec.
                     4
                             Algiers I M.
1843
            Jan.
                             U.S.A., Illinois, Cairo I D.
                     4
1843
            Jan. 5-6
                             Sumatra, S.E. coast of Baros and Island of Nias: sea
                                    waves II P.
                             West Indies, Guadeloupe, Pointe à Pitre, St. Lucia, St. Kitts, Antigua, Montserrat, Martinique III F.R.,
1843
            Feb.
                                     O.D. & P.
1843
            Mar. 28
                             France (Meurthe), Luéville I P.
                             India, Bombay, Sholapur in the (Deccan) III Ol. Holland, Vechel I P. Japan, Yezo (Kushiro, Nemuro), sea waves III O. U.S.A., California I P.
1843
            April 1
April 6
1843
            April 25
                             Japan, Yezo (IX....
U.S.A., California I F
1843
1843
            June \overline{23}
            July 25
1843
            Sept. 26
1843
                             Italy, Ragusa I P.
                             Russia (Bessarabia, Podolia), Balta, Sorok, Odessa I
M. & O.
1843
            Oct.
1843
            Oct. 18
                             Asia Minor, Karki near Rhodes III
                             Italy, Barberino, Verino and other places near Mugello in (Tuscany) I B.
           Oct. 25-27
1843
            Oct. 26
Dec. 17
Mar. 10
1843
                             Asia Minor, Erzeroum II
1843
                             21h. 56m. or 23h., 1m. G.M.T. Chile, La Serena I Mon.
1844
                             Italy, Forli I B.
1844
            May 12
                             Persia, Ispahan, Julpha, Azerbaijan and Irak III
            May
1844
                             Turkey, Angora, Osmandjik II P.
1844
            May
                             Nicaragua, Greytown II
                             France, Poitiers I P. Italy, Palestrina (Latium)
1844
           June 3-4
1844
            July 17
                                                                      В.
                             Nicaragua, San Juan II Mon. & P.
1844
            Aug.
1844
            Aug. 30
                             West Indies, St. Vincent, Grenada, British Guiana, Trini-
                                    dad II P.
                             China (Yunnan), Chengchiang Fu I Ho.
China (Shantung), Ninghai in Tengchou Fu
        Sept. to Oct.
1844
1844
            Oct.
                   6
                                                                                         III Ho.
                             5h. 18m. G.M.T., Argentina, Jujui, Salta, Tucuman III
1844
            Oct. 18
                                    Mon.
                             China (Kiangsu), Chiangyin in Changchou Fu, Paoshan,
Chiating in Taitsangchou, Sungchiang Fu; (Cheh-
kiang), Chiashing Fu II Ho.
1844
            Dec.
                     2
1844
            Dec.
                     3
                             Norway, Kongsvinger, Eideskog I
                            Hungary, Szigeth near Buda I P.
Celebes, Menado III P.
Abyssinia (Gondor) between Lake Tana and Damot
Bay, 6-12°N. 33-36°E. I P.
Java, Buitenzorg I P.
Mexico, Oaxaca, Puebla, also Atlantic and Pacific coasts
1844
            Nov.
                     4
1845
            Feb.
                     8
1845
            Feb. 12
1845
            Mar.
1845
           Mar.
                                    Ш
                                          0.B.
                            Mexico, Acapulco, Xochimilco in (Mexico), Puebla, Tlaxa-
calla, Vera Cruz, Queretaro, San Luis-Potosi, and
in the West, Central coast of Acapulco or S. Marcos
1845
            April 7
                                    III O.B., Bo. & P.
          April 19-25
                             India (Cutch), Lakhpat I
                                                                  Ol.
1845
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May 23

Spain (Teruel) I P.

July 28

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A.D.
                             Russia, Akhaltzikhe and district II M. & O.
1845
            May 24
1845
                             3h. 1m., G.M.T. Chile, Tacna and Arica I
                                                                                             Mon.
            June
1845
            June 19
                             India, Delta of the Indus, Lakhpat II
                                                                                       Ρ.
          July 10-11
July 21-25
                             Italy, Matera in the (Basilicata) Moluccas, Amboina I P.
1845
1845
                             India (Assam), Gowhatty, Sylhet, Serampore, Midnapore
1845
            Aug.
                                         Ol.
           Sept. 2 to
May, 1847
1845
                             Iceland, eruption of Hecla and many shocks
                             China (Kansu), Chenyuan in Chingchou
Spain, Tivisa, Vandellos, Pratdip I P.
1845
            Sept.
1845
            Oct.
                             Greece, Priscia, Acras, Ayasso, Mételin
1845
            Oct. 15
                                                                                     П
                             China (Kiangsu), Chingkiang in Changchou Fu
1845
            Oct. 24
Dec. 17
                             West Indies, Guadeloupe, Pointe à Pitre I P.
1845
                             Austria, Laibach I P.
Austria, Laibach in Carniola
            Dec. 19
1845
            Dec. 21
1845
            Jan. 11
                             Armenia, Nakhichevan I M. & O.
1846
1846
            Jan. 25
                             Moluccas, Ternate with sea waves I
1846
            Feb. 19
                             Colombia, River Madeleine and Rio Lagnilla
Norway, Naünstad near Christiana
1846
          Mar. 14-15
                             Crete, Canéa, Candia II P.

Malta and Gozo and felt as far as Naples, destructive in

Crete I B. & P.
            Mar. 28
Mar. 28
1846
1846
1846
            April 23
                              Russia, Javarisi or Dshwari, Kutais Government
                                     M. & O.
1846
           June 8-16
                              Greece, Mitylene, Kalamata, Nisi
                                                                             Ш
                                                                                     Р.
1846
                              Asia Minor, Smyrna II P.
            June 21
                             China (Chehkiang), Haiyen, Pinghu in Chenhsing Fu;
(Kiangsu), Suchou Fu, Hsuchou Fu III Ho.
1846
            July
                             Germany, Ems, Aix-la-Chapelle, Siegbourg, Bonn, Bop-
            July 29
1846
                                     part
                                             I P
1846
                             China (Shangtung), Ninghai, Huang in Kengchou Fu;
                     3
            Aug.
                                     (Kiangsu), Suchou Fu, Sungchiang Fu; (Chehkiang),
Huchou Fu III Ho.
                             Huchou Fu III Ho.
China (Kiangsu), Chiating, Paosan, Chungming in Taitsang-
chou, Sungchiang Fu; (Shantung), Chingchou Fu;
(Chehkiang), Ningpo Fu III Ho.
China (Kiangsu), Sungchiang, Nanhui in Sungchiang Fu.
Severe shocks on Aug. 7, 10, 14, 18 and 27 III Ho.
China (Kiangsu), Yihsing, Chingchi in Changchou Fu,
Sungchiang Fu. Shocks until Dec. 29 III Ho.
Italy, Syracuse II B.
Italy, Campomaggiore, Craco and other places in the
(Basilicata) I B.
1846
            Aug.
1846
            Aug. 5.
1846
         Aug. to Sept.
1846
             Aug. 7
1846
             Aug. 8-9
                                     (Basilicata)
ues ? I P.
                                                        I B.
1846
            Aug. 12
Aug. 14
                              Lucques?
                              Italy, Orciano, Luciana, Monte Scudaio and elsewhere in the Pisan Hills III B.
1846
                              in the Pisan Hills III B.
Switzerland, Lausanne, Yverdon
1846
             Aug. 17
                              Siberia, Irkutsk and Kirensk I
                                                                           М. & О.
1846
             Aug. 18
                              West Indies, Trinidad, St. Domingo
                                                                                 I P.
1846
             Sept. 13
                              India, Momansingh, Calcutta, Serampore Algiers, Cherchell I P.
1846
             Oct. 18
                                                                                              Ol.
             Nov.
1846
                              Algiers, Cherchell
1846
             Nov. 21
                                                             P.
                              Java, Penggalengan
                                                           1
1846
             Dec. 24
                              Egypt, Cairo I O
15h. 36m., G.M.T.
1847
                                                       0.D.
                                                         Chile, Copiapo II P.
1847
             Jan. 19
                                                                                               Mon. gives
                              France, Vendée, Lucon
Chile, Copiapo II P.
             Jan. 25
1847
                                                                 Ι
1847
             Feb.
                      8?
                             Germany, Nuremberg, Coburg, Eisfeld I P. Peru, Huancarama and Carabaya II P. & H.J. Japan (Shinano). Zenkoii: (Echigo) III Mi.
1847
             April 7
             May
1847
                             Japan (Shinano), Zenkoji; (Echigo) III Mi.
Siam, Chantabun I P.
Russia, Kushwinsk, Verkhoturie, Nizhneturie and Bis-
sersk mines and works in the Urals I M. & O.
             May
1847
                   13
             May
1847
         May 15 or 16
1847
                              Algeria, Doueira, Koubah I P.
             June 18
1847
             June 28
                              Peru, Ica II P.
1847
                              China (Kiangsu), Taitsangchou, Sungchiang Fu; (Chehkiang), Ningpo Fu I Ho.
Spain, Seville, Jean, Badajoz I P.
             July 24
1847
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A.D.
1847
                                Nicaragua, St. Jean III P.
             July 31
                                West Indies, Dominica II P.
West Indies, Dominica II P.
Sweden, Helsingborg III P.
Mexico, Mexico and Ocollan, Guadalajara, Oaxaca, Puebla
1847
                       7
             Aug.
1847
             Sept.
                       5
             Sept. 11
1847
1847
             Oct.
                                       III P. & O.B.
46m., G.M.T., Chile, Liquai, Petorca, Valparaiso,
                       8
                                16h.
             Oct.
1847
                                        Santiago, Coquimbo, Atacama and La Serena
                                         P. & Mon.
1847
             Oct.
                     17
                                Chile, Coquimbo, Illapel, Ligua I-II
Mexico, Atlixco III P. See Oct. 2.
                                                                                         Mon.
1847
             Oct. 23
                                N.W. Sumatra, between Great and Small Nicobars II P.
1847
             Oct. 31
                               China (Kiangsu), Taitsangchou, Suchou Fu, Sungchiang Fu; (Chehkiang), Ningpo Fu; (Kiangsi), Kanchou Fu II Ho.

Java and S.E. Sunatra, Chéribon (Palimanan, Rembang,
             Nov. 12
1847
1847
             Nov. 16
                                Semarang and Lampong) III P.
Russia, Tiflis I P.
Portugal, Sabserra II P.
1847
             Dec. 20
             Dec. 20
Dec. 27
1847
                               Portugai, Sabserra III.
Spain (Alava), Orduna and (Delica) I P.
Mexico, Colima, Zapotlan II P.
U.S.A., Alaskan Coast, Sitka II F.R.
1847
1847
             Dec.
1847
                                Nova Scotia, Lawrence Town
West Indies, St. Lucia I P.
1848
             Jan. 1
                                                                                    Ρ.
                                                                              Ι
1848
             Jan.
                                Italy, Augusta, Noto, Syracuse, Catania, etc.
Java, Batavia, Semarang II P.
             Jan. 11
1848
           Feb. 16
Feb. 11
March 1-2
1848
1848
                                Morocco I P.
                               Germany, Oppenheim I
Morocco, Melilla I P.
Siam, Chantabun I P.
1848
             April 29
1848
             May 13
May 31
1848
                                Mexico, Guadalajara in
Mexico, Puebla II
1848
                                                                         (Jalisco), Guerrero, Oaxaca,
                                                                       Ò.B.
                                Italy, Montagnolo in (Siena) I B.
Italy, Ventotene in Pontine Islands I B.
Spain (Aragon), Torres_I P.
1848
             June
                      5
1848
             July
             July 19
1848
            July 27 to
           Aug. 7
Sept. 9
Sept. 24
Oct. 16-25
                                Java, Bantam I P.
West Indies, St. Lucia I
Caucasia, Shemaka I P.
1848
1848
                                                                          Ρ.
1848
                               New Zealand, Wellington, Nelson, Wanganui, with sea waves II P. O.D. gives Oct. 17.
Central America, E. Nicaragua, also felt in Honduras and Salvador I P. & Mon.
1848
             Oct. 27
1848
                                Formosa, Unrin III II.
Azores II P.
Bolivia, Santa Cruz de la Sierra II Mon.
1848
1848
             Dec. 31
1848-50
                                Italy, Mascheta and Casetta di Tiara in (Tuscany)
1849
             Jan.
                       ß
                                                                                                                   В.
                                Austria, Vienna I P.
6h. 56m., G.M.T. Philippines, Ladrones Islands, Guam
             Jan. 24
1849
             Jan. 25
1849
                                        Island, Bay of Ulmata, Agana III P. & S.M.
             Jan. 29
Feb. 25
                                Siberia, Government of (Tobolsk) at Ishim I P. Marianne Islands III P.
1849
1849
             April 9
May 3
                                Argentina, San Luis III Mon.
Venezuela, Maracaibo I P.
Moluccas, Island of Amboina, Island of Honimoa, Saparoea
1849
1849
             May
             May 28
1849
                                Monicas, A. I. I. P.
Azores, Praya de Victoria II P.
West Indies, St. Domingo I P.
Chile, La Serena; sea waves I Mon.
Austria, Weiss-Passung, Glognitz, Wiesser
II A. Alaska, Commander Islands II-III
1849
             June 12
          June or July
1849
             June 17
1849
1849
             Aug. 20
             Oct. 22
Nov. 28
Dec. 17
                                U.S.A., Alaska, Commander Islands II-III P. & F.R.
1849
                                Italy, Borgotaro (Parma) I B.
Chile, Coquimbo, Santiago and Valparaiso; sea waves
Mon.
1849
1849
                                Philippines, S.W. Guam II F.R. Not in S.M.
1849
                                Italy, Biancavilla and Belpasso (Catania) II B.
1850
             Jan. 1
                                Algiers I P.
1850
             Feb.
                       Ω
             April 3
                                Asia Minor, Smyrna, Nymphio I P.
Austria (Bohemia), Elbogen, also Morea, Vostizza
1850
1850
             July 15
                                Sweden (Skaraborg), Werlingen, Danstrop I P.
             Aug. 17
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A.D.
                              Austria (Dalmatia), Stagno, Piccolo
1850
             Aug. 19
           Sept. 18
Sept. 22
Oct. 7 & 8
1850
                              Italy, Modena I
                                                         B.
1850
                              China (Ssuchuan), Sichang
1850
                              Moluccas, Amboina I
Malta I B.
             Nov.
1850
                     8
                              Italy, S. Nicandro (Aquila)
1850
             Nov. 11
                                                                       Ι
                              France, Lourdes, St. Pé I P.

11h. 26m., G.M.T. Chile, Santiago, from Coquimbo to
Talca, 310 miles II P. & Mon.
1850
             Nov. 20
1850
             Dec.
                                                                     P. & Mon.
P.
 1850
                              Algeria, Guelma, Bone
             Dec. 17
1851
             Feb.
                              Colombia, Carthagena
                                                              II
                              Austria (Tyrol), Switzerland
 1851
             Feb.
                              Colombia, Carthagena II
             Feb.
                      7
 1851
                              West Indies, Porto Rico I P.
Asia Minor (Anatolia, Trebisond), Samsun I P.
Asia Minor (Anatolia), Makri, Rhodes III P.
6.45 a.m., local, Costa Rica, San José, Heredia, Barba,
Alajuela, Cartago and Guanacasti II P., O.D.
            Feb. 20-22
1851
             Feb. 25
Feb. 28
1851
1851
             Mar. 18
1851
                                      & Mon.
                              West Indies, Costa Rica, Alajuela III P.
11h. 27m., G.M.T. Chile, Valparaiso, Casa Blanca, on the road to Sanitago, extended north to Copiapo, Co-
1851
            Mar. 24
1851
             April 2
                                      quimbo and Cobija and south to Concepcion
                              Italy, Messina
1851
             April 11
                                                    I B.
                              Armenia, Nakhichevan
1851
             April 13
                                                                1
                                                                     M. & O.
                              Sweden, Gothenburg, Lysekil, and Laegeland
Austria (Herzegovina); Stagno, Piccolo I
Baluchistan, Gwador I Ol.
Spain, Majorca Island II P.
1851
             April 13
1851
             April 13
             April 19
1851
            May 15
1851
1851
            May 16
                              West Indies, Guadeloupe, Basse-Terre I
                              Guatemala (Quetzaltenango) III P.
Chile, Copiapo, Huasco, Vallenar and Freirana with sea
waves II P. & Mon.
1851
            May 17
            May 26
1851
             June 27
                              Austria, Salzburg, Reichenhall
1851
1851
             July
                              Hungary, Comorn I P. Austria, Roveredo, Tione
                                                                        Ρ.
1851
             July 30
                              Italy, Melfi, Rionero, Barile, Rapolla in (Basilicata)
B.
             Aug. 14
1851
                                                                                                          Ш
                              Switzerland, Unterwald I
1851
             Aug. 24
                              Austria, Stagno, Piccolo I Italy (Apulia), Conosa I B.
1851
            Sept. 1
                                                                     Ρ.
          Sept. 6 & 7
1851
             Oct. 12
                              Turkey in Europe, Albania, Valona, Beratti, Elbassen
1851
                             Honduras, Tegucigalpa II Mon.
Siberia, Okhotsk Dept. along coast of the sea of Okhotsk
from the Taui to the Tuman post, 470 miles II
1851
            Nov. 14
Nov. 28
1851
                                     M. & O.
                              West Indies, Pointe-à-Pitre
                                                                     I P.
1851
            Dec.
                              Russia, Gelabuga (Wjatka)
                                                                     I
1851
            Dec. 27
1851-2 April to Jan.
                              Italy, Tresilico (Reggio-di-Calabria)
                              Austria, Karlstadt, Agram I F.
India, Upper Sind, Murree Hills
1852
            Jan.
1852
            Jan.
            Jan. 24
                              Mexico, Soyaltepec and elsewhere in Oaxaca
1852
                             Spain (Catalonia), Olot I P.
France (Gironde), Libourne I
France (Ariège), Massat I P.
Central Asia, Derbent I P.
            Jan. 25
1852
            Jan. 26
1852
            Feb. 22
Feb. 22
1852
1852
            April 16
                              Azores, St. Michel II
1852
                                                              Ρ.
                              China (Kansu), Chungweihien III Pa.
1852
            May 26
                             India, Darjiling II Ol.
Italy, Ischia I C.V.
West Indies, Jamaica I P.
Italy, Ischia, Casamicciola I
1852
            May
1852
            June
1852
            July
1852
            July
                     7
                                                                        C.V.
                             Asia Minor, Rhodes, Makri, Levisi
Armenia, Erzerum III M. & O.
1852
            July
1852
            July 24
1852
            Aug. 20
                             14h. 5m., G.M.T.
& O.D.
                                                        West Indies, Cuba, Santiago
                                                                                                   Ш
                                                                                                           Ρ.
                             Germany, Würtemberg, Biberach
1852
            Aug. 23
                                                                               п
                                                                                     Ρ.
            Aug. 29
                             Asia Minor, Erzerum II P. Greece and Turkey, Ramazan
1852
            Aug. 26
1852
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A.D.
                               Eyersura III P. 10h. 45m., G.M.T.
1852
             Aug.
             Sept. 16
1852
                                                                 Philippines, S. Luzon (Zamballo,
                               Pampanga), Manila, (Cavite and Batangas) II S.M.
Philippines (Camarines and Albay) I S.M.
Java, Keboeman, (Poerworedjo) I P.
             Sept. 25
1852
1852
             Oct. 15
                               Java, Keboeman, (Poerworedjo)
1852
             Nov. 4
                               Mexico, Acapulco III P.
                               Mexico, Acapuico III P.
U.S.A., Arizona, Fort Yuma I or II F.R.
France (Drôme), Dieu-le-Fit I P.
Java, Semarang, Dagelin, Kadae I P.
Moluccas, Great Banda, Loathoir, Papenberg, Neira;
with sea waves III P.
             Nov. 9
Nov. 20
Nov. 20
Nov. 26
1852
1852
1852
1852
                               8h. 37m., G.M.T. West Indies, Cuba, Santiago, Sierra
Maestra II P., O.D.
1852
             Nov. 26
1852
             Dec.
                               Mexico, Acapulco, Ayutla, origin near San Marcos I
             Dec. 17
Dec. 20-21
1852
                               U.S.A., California, San Luis, Obispo I P. West Java III P.
1852
1852
             Dec. 24
                               Batavia, Buitenzorg I
             Dec. 24
1852
                               Philippines, S. Luzon (Batangas)
                                                                                 II S.M.
                               New Zealand, New Plymouth I P. Sweden, Arbra and Unders-Vik I P.
             Jan. 1
Jan. 12
Jan. 18
1853
1853
                               Armenia, Delishan, Village of Chubukhly, Tiflis district and Sevanga Island II M. & O.
1853
                               Java, Sampang I P.
Spain, Barcelona I P.
             Jan. 20
1853
             Jan. 27
1853
1853
             Jan. 30
                                Italy, Ischia, Casamicciola I C.V.
                               Salvador and Guatemala, La Antigua, Amatitlan, Quezal-
tenango I P.
1853
             Feb. 9
1853
             Feb. 19
                                Italy, Amara (Friuli)
                                                                  1
                                                                      В.
                                Japan, Odawara (Sagami, Suruga, Izu, Mikawa, Totomi)
1853
             Mar. 11
             Mar. 12
Mar. 18
April 1
1853
                                U.S.A., North part of State of New York Armenia, Ssabui near Zarskije-Kolodzy I P.
1853
                                France, Normandy, Granville and throughout Coutances I P.
1853
1853
             April
                                Salvador, San Salvador I P.
Moluccas, Hila, Laricke I P.
1853
             April 12
                               China, Shanghai, village 30 miles from Shanghai completely ruined II M. & O. P. gives April 14.
Switzerland (Grisons), Coire or Chur I P.
Italy, Caposele, Teora, Leone, Calabritto in (Avellino) II
B.
1853
             April 13
1853
             April 18
1853
             April 19
1853
           April 21-22
                                Persia, Shiraz; 12,000 people killed III
1853
             June 2
                                Persia, Jusd, Fort Umachan-Jusd damaged I
1853
             June 14
                                Austria, Karlstadt, Agram I F.
             July 11
July 15
July 14
Aug. 2
                                Persia, Ispahan, 10,000 people killed III P.
Venezuela, Cumana, 800 or 4,000 people killed III
Costa Rica, Canas Gordas, Bagaces II P.
Italy, Pomarance, Volterra in (Tuscany) I B.
1853
1853
1853
1853
1853
              Aug. 11
                                Switzerland, south of Soleure and Biberist I P.
 1853
              Aug. 15
Aug. 18
                                Venezuela, Cumana I P.
                                Greece (Beotia), Thebes, and bounded on north by M.
Atalante, east by Gulf of Atalante, south by R.
Asopus, west by L. Copais III P.
Guatemala, Trujillo I P.
1853
              Aug. 26
1853
                                Italy, Spoleto in (Perugia) I B.
Greece, Athens, Chalcis, Island of Scyros and Tenedos,
Bagaces II Mon. P. gives Aug. 24 and Sept. 10.
 1853
              Sept. 22
              Sept. 30
 1853
                                Austria (Herzegovina), Mostar
Java, District Glawoe I P.
Turkey, Constantinople I P.
 1853
              Oct. 10
 1853
              Nov. 30
 1853
          Early in Dec.
                                Philippines, S.E. Luzon (Camarines), Nueva Caceres,
Daet II S.M.
 1853
 1853
                                 Formosa, Tamsui
Mexico, Durango
                                                           1
                                                                  H.
 1854
              Jan.
                                                                  O.B.
                                 Spain (Andalusia), Finana I P.
 1854
              Jan. 13
                                 Mexico, San Juan del Rio and Tlalpujahua in (Queretaro)
 1854
              Jan. 13
                                         I O.B.
                                23h. 56m., G.M.T., Chile, Coquimbo I P. & Mon.
Italy, Donnici, S. Ippolito, Torzano and other places in
(Cosenza) II B.
 1854
              Jan. 14
Feb. 12
 1854
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A.D.
                              Abysinia, Betalihem near Mahdara I P. Peru or Venezuela, Truxillo I P. Turkey, Constantinople I P.
1854
         Feb. 15 & 21
1854
            Feb.
            Mar. 12
1854
            Mar. 17
1854
                              West Indies, Cuba, Santiago
                              Guatemala and Salvador III P. & Mon.
Java, Residence of Kediri, Prigi I P.
            April 15
1854
            May
1854
                      3
1854
            May
                      5
                              Mexico, Cordoba in Vera Cruz, Acapulco, Oaxaca, Puebla,
                              Mexico II O.B.
Algeria, Blidah I P.
            May 15
June 11
1854
                              Salvador, San Vicente I
                              Salvador, San Vicente I P. & Mon.
Italy, Imola in (Romagna) I B.
1854
1854
            June 16
                              Japan (Yamashiro, Yamato, Kawachi, Izumi, Settsu, Omi,
1854
            July
                                      Tamba, Kii, Owari, Iga, Ise, Echizen)
                                                                                               III O.
                              Guatemala, Amatitlan, Escuintla II P. & Mon.
Turkey, Albania, Fortress of Suli I P.
1854
           July 14-17
            July 30
July 31
1854
                              France, Bagnères, Grip, Argelès, Tarbes, Eaux-Bonnes,
Cauterets I P.
1854
                                                         Ρ.
1854
            Aug. 29
Sept. 23
                              Java, Padang
                                                     Ι
                              Persia, Tabriz
1854
                                                    H
          Sept. 28 or
                     3
1854
            Oct.
                              China, Hongkong, Canton I P.
                              Persia and Caucasia (Ghilan), Resht, Enzeli and Shemaka
1854
            Oct.
                      1
                                      I P.
1854
            Nov. 26
                              Salvador, San Salvador
                                                                  Τ
                                                                      Р.
1854
            Dec.
                              Moluccas, Banda I P.
          Dec. 23 & 24
1854
                              All Japan, but chiefly central at and near Tokio, Shikoku,
                                      (Suruga, Totomi, Mikawa, Ise, Iga, Inaba);
waves III O.
                              France and Italy, Grasse, Cagnes, Var, Saint Paul, Menton, Ventimiglia, Bordighera, S. Remo and other places in Western (Liguria) I P. & B.

New Zealand, Wellington, Wairau, Wanganui, Otaki III P. & O.D.
1854
            Dec. 29
1855
             Jan. 23
1855
             Jan. 24
                              U.S.A., California, Downieville, Gibsonville, Georgetown
                                      I
                                          Ρ.
           Jan. 26-27
                              Italy, Macchia and surrounding places near Etna I
1855
                               Guatemala, Quetzaltenango I
1855
             Jan.
                                                                             Ρ.
                               Mexico, Vera Cruz, Jalapa, Chilpancingo, Oaxaca, Puebla
1855
             Feb.
                      1
                                          O.B. P. gives II
1855
             Feb.
                      5
                               Algeria, Ouennoupha, Mélouza
                                                                            H
                               New Zealand, Wellington
New Zealand, Wellington
1855
             Feb.
                      9
1855
             Feb.
                     14
                                                                      II P.
1855
             Feb.
                     17
                               Greece, Samos I
                                                           P.
                               Turkey and Asia Minor, Adrianople, Dardanelles, Gallipoli,

Brussa, Smyrna II P.
             Feb. 28
1855
                               Asia Minor, Smyrna, Macri II
Asia Minor, Brussa I P.
1855
             Mar.
             Mar. 5-6
1855
                               Mexico, Oaxaca, especially Mixteca II O.B.
Philippines, S. and S.E. Luzon (Tayabas, Camarines, Albay,
1855
             Mar. 8
Mar. 22
1855
                                       Sorsogon) I S.M.
1855
             March
                               Guatemala, Quezaltinango
                                                                           Ρ.
                               Turkey, Asia Minor, Brussa, Constantinople I P. Moluccas, Ternate, Halmahera II P. Brussey, Agricultus II P.
             April 11
1855
             April 25
1855
                               Panama, Aspinwall, Gatun I P.
Norway, Kinservig I P.
Asia Minor, Brussa to Mouhalitch near Mount Olympus
III P.
             April 25
1855
             April 27
1855
             April 29
1855
1855
             June 26
                               Java, Tjilatjap
                                                          Ρ.
                                                      1
                               Turkey, Albania, Scutari II P.

    July 3 July 10 U.S.A., California, Los Angeles, St. Bernardino, Santa Barbara II P.
    July 14 Moluccas, Halmahera, Ternate, Tidore II P.
    July 25 to Dec. France, Germany, Italy and Switzerland, Viège, all the east of France, Visp in the Valais (Piedmont) and in the Lower Rhine to Strassburg II P. & B.
    Aug. 14 Turkey, Albania, Scutari, Vaudens, Bouchat, Jubani, Zadrima, Kosmatchi, in Drin Valley II P.
    Aug. 22 Switzerland, Valais, Ausserberg I P.
    Switzerland, Taranaki I P.

1855
              July 3
             Oct. 22
                               New Zealand, Taranaki I P.
 1855
 1855
                               Malta I P.
              Nov. 8
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A.D.
 1855
                              Spain, Granada I P.
              Nov. 11
                               Japan, Tokio; (Sagami, Shimosa)
 1855
              Nov. 11
                                                                                III
                                                                                       Mi.
 1855
              Nov. 23
                               France, Basses Alps, Castellane I
                                                                               Ρ.
 1855
              Dec.
                              France (Haute-Garonne), Chaum, from Tarbes to Auch
                                           P.
                              Celebes, Gorontalo I I
Spain, Barcelona I P.
 1855
              Dec.
 1855
              Dec.
                       ß
                              France, Basses Alps, Castellane II P.
              Dec. 12
 1855
                              Portugal (Algarve), Soulé, Faro, Albufeira and Tavira II P.
             Jan. 12
 1856
                              Java, Semarang I P.
Mexico, Oaxaca, Canada I
 1856
              Jan. 19
 1856
             Feb.
                                                                      O.B.
                              Switzerland, Valley of Visp, Toerbel I P.
 1856
              Feb.
                            Switzerland, Valley of Visp. 10cruer 1.

Ecuador, Latacunga (Chimborazo), Cuença, Banos and (Quito) II P. R.S. gives III

U.S.A., California, San Francisco, it extended from Santa Rosa to Monterey, 143 miles I P.
 1856
             Feb. 12
 1856
             Feb. 16
                              Asia Minor, Brussa II
                                                                P.
 1856
             Feb. 17
                              Turkey, Constantinople, Samsun, Varna India, Kangara, Simla, Kotghur I Ol.
 1856
             Feb. 22
April 7
 1856
                              Honduras, Belize, Omoa I P.
Italy, Acquaviva, Canosa and elsewhere in (Bari) I B.
Siberia, Selenginsk I P.
 1856
             May
                      5
             May 11-12
 1856
 1856
             May 23
                              Caucasia, Shemaka III P., M. & O.
Honduras, Omoa, San José III P. & Mon.
 1856
             June 5
             July 23
 1856
 1856
             Aug. 4
 1856
             Aug.
                     6
                              Celebes, Gorontalo I P.
                              China, southern part of (Chihli), Yuching, 20 miles from
Pekin destroyed III P., M. & O.
Algeria, Bone, Philippeville I P.
 1856
           Aug. 14-17
                              Algeria, Bone, Philippeville
Japan, Hakodate II O.
Algeria, Djidjelli I P.
1856
             Aug. 21
             Aug. 23
1856
                              Algeria, Djidjelli I
Algeria, Philippeville
1856
            Sept. 2
                                                             1
1856
             Oct.
                             Spain, Murcia I P.
Mediterranean, Malta, Gozo, Civita Vecchia, Karpathos,
Palermo, Corfu, Rhodes, Candia, Cassos, Simi and
Castelloriso III P., B. & O.D.
                      9
1856
             Oct.
1856
             Oct. 12
1856
         Oct. 12 or 22
                             Grecian Archipelago, Santorin, Stalchi, Carpentes, Cossos; shocks reached Syria and Egypt I P.
1856
            Oct. 26
                              Java near Papandajang
1856
            Nov. 4
                              Japan, Tokio I Mi.
Austria, Laibach I P.
1856
            Nov.
                     9
                             Salvador, San Salvador, Jaltepeque II P. Siberia, Selenginsk I P. India, Bombay, Sirat I P.
1856
            December
1856
            Dec. 6
Dec. 25
1856
                              U.S.A., Southern California, Santa-Clara, Santa-Barbara,
           Jan. 8 & 9
1857
                                     Los Angeles, Monterey, Stockton III
                                                                                          P. & F.R.
1857
            Jan. 24
                             France (Nord), Cambrai, Brotteaux
1857
            Jan. 27
                             Sumatra, Benkoelen I P.
            Feb.
                             Italy, Parma, Casalmaggiore and Modena, etc. I B.
1857
            Feb. 25
                             Celebes, Gorontalo I Austria, Laibach I P.
1857
            Mar.
1857
                             Italy, Lubiana in (Venetia)
1857
            Mar.
            Mar. 12
                             Loochoo Islands, Naha I
1857
            Mar. 29
April 6
April 9
                             Hungary, Homonna I P.
Moluccas, Banda Island, Neara I
1857
                             Moluccas, Banda Island, Neara I P.
Asia Minor (Bitlis), Kinnis, Mush II P.
New Guinea, Rook Island or Umbon Island
1857
1857
            April 17
1857
                             Timor, Dilly, Kambing, Atapoepoe II P.
Asia Minor, Brussa I P.
Sumatra, Padang I P.
Celebes, Gorontalo I P.
Lapan (Sumga) II O
1857
            May 13
May 21
1857
            May 24
May 27
1857
1857
                             Celebes, Gorontalo
Japan (Suruga) II
1857
            June 14
                                                          0.
1857
                             Cape of Good Hope I
                                                             P.
            Aug. 14
                             Mexico, Yautepec in Morelos, Oaxaca, Puebla, Tlaxcala I O.B.
1857
            Aug. 19
                             Peru, Piura I P.
Turkey, Brussa and at the same time at Péra near Con-
1857
            Aug. 20
1857
            Sept. 17
                                    stantinople I P.
                             U.S.A. (Illinois), Centralia I
1857
            Oct.
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A.D.
1857
           Oct. 15
Oct. 27?
                            Japan (Iyo) II O.
                           Persia, Tesong, Azerbaidjan II P.
1857
1857
            Nov. 5
                           Salvador, Guatemala, San Salvador
                           Switzerland, Como, Menaggio I P.
            Nov. 10
1857
1857
           Nov. 24
                            Austria, Spital, Windisch-Garsten
       Nov. ? Dec. 27
1857
                           Asia Minor, Brussa I P. Italy (Bascilicata), Salerno
1857
           Dec. 16
                                                                III
                           Salvador, San Salvador, Cajutepeque III P.
Uganda, Gondokoro on the Nile I P.
Siberia, Semipalatinsk Prov. and Tomsk Govt., especially
1857
           Dec.
            Dec.
1857
           Dec. 24
1857
                           Kokpetlinsk and Ust-Kameinogorsk I P., M. & O. Loochoo, Naha I P.
1858
           Jan.
1858
           Jan.
                    ß
                           Italy, Castellucio Inferiore in the (Basilicata)
1858
           Jan. 15
                           Hungary (Moravia and Gallicia), Mintzchow, Visnyove
1858
           Feb. 21
                           Greece, Athens, Kalamaki and Corinth
                          West Indies, Martinique, St. Pierre I P.
Moluccas, Ternate I P.
Algiers, Blidah, Milianah, Boujarik and Cherchel I P.
Japan (Etchu, Echizen) II O.
           Feb. 24
Feb. 27
1858
1858
           Mar.
1858
                   9
           April 9
1858
1858
           April 13
                           Austria, Carinthia, Rosegg
1858
           April 19
April 23
                           Asia Minor, Brussa I P.
                           Japan (Shinano) II
1858
                           Guatemala, Amatitlan, Escuintla, as far as Salvador, Cojutepeque I P.
           April 24
1858
1858
           April 30
                           Austria, Pola and Citena
1858
        Early in May
                           Nicaragua, Granada and Masaya
                                                                      II P. & Mon.
1858
                           Mexico, Oaxaca, Puebla, Vera Cruz, Guerrero and Chiapas
           May
                                     O.B.
1858
           May 24
                           France and Germany, Mayence, Oppenheim, Wiesbaden
                                  I P.
                           Moluccas, Ternate, Manado and Bachian in Celebes Islands
1858
           June 4
                                  I P.
                           Mexico (Mexico), Puebla, Tlaxcala, Palzcuaro in (Michoacan), San Luis-Potosi (Jalisco, Colima and Guerrero)
III P. & O.B.
1858
           June 19
1858
                           Ecuador, Quito
        July or Aug.
                                                III
1858
           Aug. 11
Aug. 24
                           India, Simla
                                             1
                                                 Ol.
1858
                           North of British Burmah, Thayet-myo, Prome,
                                                                                            Akyab,
                                  Khyouk-Phyoo; origin between Irawadi and Bay of Bengal II Ol.
                                                            1
1858
           Aug. 28
                           Peru, Amotape, R. Chira
                                                                Ρ.
        Sept. 20 to
                           Turkey and Greece, Corfu, Epirus, S. Albania (Delwino),
1858
                                  Kutsch, Schulat, Fuschabarda III P.
           Oct. 10
1858
           Oct.
                   3
                           Algeria, Aumale I P.
1858
           Oct.
                    9
                           Turkey and Greece, Albania, Valona, Gimave, Drymades,
                                  also Epirus I
                                                       Ρ.
           Oct. 10
                           Italy, Brindisi I B.
1858
                           France (Vosges), Saut-de-la-Cuve
France, Pigneroles, Cavour I F
Italy, Pinerolo (Turin) I B.
Moluccas, Amboina I P.
1858
           Oct. 16
1858
           Oct. 25
        Oct. to Nov.
1858
1858
           Nov. 9
                           Moluccas, Amboina I P.
Portugal and Spain, Lisbon, Cintra, Mafra, Belem, Setuval,
Seville II P.
           Nov. 11
1858
           Nov. 26
Nov. 28
                           U.S.A., California, San José I P.
Bosnia and Albania (Zwarnick), Tuzla, Ergheni
1858
1858
            Nov. 29
                           France (Basses Pyrénées), Mauléon I Celebes, Ternate I P.
1858
           Dec. 13
Dec. 23
1858
                           West Indies, Jamaica, Kingston I P.
Philippines, Mindanao, Lanao and Cotabato I S.M.
Asia Minor, Erzerum I P.
Italy, Collalto (Treviso) I B.
Ecuador, Quito and between Guayaquil to Popayan
1858
1858
                                                                                          S.M.
1859
           Jan.
                   9
            Jan.
                   20
1859
                  \overline{22}
           Jan.
1859
                                                                                                 \Pi\Pi
                                  Ρ.
1859
           Mar.
                   5
                           France, Basses-Pyrénées, St. Jean-le-Vieux I
                           Ecuador, Quito, Machachi, Perucho, Pomasqui, Saint
Antonio, Chillogallo; felt from Guayaquil to Magdo-
lena and Popayan in Colombia III P.
           Mar. 22
1859
1859
                           Peru, Callao I P.
           April 10
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A.D.
 1859
              April 12
                                Italy,
                                          Osservanza, Colombaio and neighbourhood in
                                (Siena) I B.
Asia Minor, Erzerum, origin in Palentjukan Mountains and Erlidag III P.
            May 21 or
 1859
              June 2
            May 31 or
                                Caucasia, Shemaka, Baskal, Zourmel, Lagitch I Caucasia, Shemaka and Erzerum I M. & O. May 21 and June 12, form one group.

Armenia, Tiflis and Erzerum I P., M. & O.
1859
              June 12
              June 26
1859
1859
              July 13
                                                                                 P.
              July 29
                                Celebes, Menado; sea waves I
1859
              Aug. 20
                                Turkey, Island of Imbros, Panaya, Ayotheodoro, Pyrgos
1859
                                         (Gallipoli, Dardanelles) II P.
1859
              Aug. 22
                                Italy, Norcia, and surrounding country in (Perugia)
                                                                                                                   TT
1859 Aug. 25-Sept. 3 Salvador, La Union; sea waves
                                                                                  II P. & Mon.
                                Turkey, Sophia, Tchoadjikhan, Chirvan in Tiflis
12h. 46m., G.M.T. Chile, Caldera, Copiapo II
1859
              Aug. 31
1859
              Oct.
                       5
1859
              Oct.
                                U.S.A., California, San Francisco I P.
                       5
                                Mexico, Canada and elsewhere in Oaxaca
1859
              Oct.
                       6
                                                                                                \mathbf{II}
                                Moluccas (Halmaheira), Kao, Ternate
1859
              Oct.
                       8
                                                                                          \Pi
                                                                                                Ρ.
              Oct. 11
                                Chile, Copiapo II P.
1859
                                China (Shingking), Kaichou, Newchuang II Pa.
U.S.A., California, San Francisco I P.
Central America, Guatemala, Nicaragua, Tepecoya, Guaya-
1859
              Nov.
                       9
1859
              Dec.
                       1
1859
                       8
             Dec.
                                        moco, Panchimalco, Nahuizalco, San Silvestre, Izalco,
San Martin, Masahuat, Nahulango, Juayua, Santo
Domingo, San Antonio, Caluco, Acajulta; sea waves
                                        II P.
1860
                                Guatemala, Antigua, Escuintla II
             Jan. 18
1860
             Feb.
                                France, Pyrenees, Rocheblanche
                       1
                                West Indies, Haiti, Port-au-prince, l'Anse au Veau, Cayes,
Acquin II P.
Peru, Arequipa I H.J.
Peru, Arequipa I H.J.
1860
             Feb.
                       6
             April 8
1860
1860
             April 18
                                Peru, Lima, Callao, Cherillos, Manta, Lurin, Carabayllo,
Huauhipa II P. H.J. gives I
Austria, Styria, Rann I P.
1860
             April 22
1860
             May 8
             May 16
                                Turkey, Albania, Berzita near to Tirano I P. Italy, Norcia (Perugia) I B.
1860
         May 27 or 30
1860
                                Asia Minor, near Mt. Olympus I P.
Central America, Tepalitai, Vera Cruz, Guadaloupe, Guate-
1860
             June 7
1860
           June 21-24
                                mala, Cojutepeque, Santa Maria, Ostuma II P. Italy, Callalto, Guia (Treviso) I B. Nubia, Berber I P. Bolivia, Chile, Paz, Tacna I P. & Mon. Iceland, Reykjavik I Th. Algeria, Bordj-Bou-Arreridji, Talzmat, l'Oued-Sahel, Tensont II P.
1860
             July 19
1860
              Aug.
                      - 5
             Sept. 20
1860
             Sept. 20
1860
1860
             Sept. 27
                               Algeria, Bordj-Bou-Arreridji, Tatzmat, l'Oued-Sahel, Tensaout II P.
Lower Austria, Litschau I P.
Salvador, San Salvador II P.
Celebes, Minahassa I P.
U.S.A. and Canada, N.E. New England and State New York, Baie-St.-Pauls, Rivière-Ouelle I P.
Caucasia, Belli-Kliuch, 41°33N. 44°30E. I M. & O. See
1860
             Sept. 28
1860
             Oct. 3-6
1860
             Oct. 13
             Oct. 17
1860
1860
             Nov.
                               Nov. 9.
Caucasia, Nazran
Caucasia, Nazran
Formosa, Tamsui
1860
             Nov.
                       9
                                                            II P.
                                                                        See Nov. 4 and 28.
1860
             Nov. 28
                                                           I P.
                                                                        See Nov. 9.
1860
             Nov.
                                                           Ι
                                                                 н.
                                Asia Minor, Smyrna, Chio, Kutaiah
                                                                                        I P.
1860
             Dec.
                               Central America, Guatemala, San Salvador, Santiago,
Santa Tecla, Quezaltepeque, Opico, Tacachico III
1860
             Dec.
                       3
1860
             Dec.
                       3
                                Armenia, Erzerum I P.
Italy, S. Sofia (Tuscany) I
1861
             Jan. 28
                               Italy and Malta I B.
S.W. Sumatra, Padang (Acheen), Batu Island, Nias
1861
             Feb.
                       9
1861
             Feb.
                    16
                               Sunday Islands II M. & O.
Behring Sea, Copper Island I M. & O.
1861
             Feb. 16
1861
             Feb. 22
                                Caucasia, Shemaka I M. & O.
1861
             Mar, 5
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A.D.
                  Mar.
                               9
                                             Sumatra, Padang, Islands of Batu, Simo III P.
1861
                                             Italy, Varese, Ligure (Liguria) I B.
0h. 16m., G.M.T. Argentina, San Luis, San Vicenti,
Lujan, Mendoza, reached Santiago in Chile III
                   Mar. 16
Mar. 21
1861
1861
                                                         P. & Mon.
                   Mar. 29
                                             Algeria, Blidah
1861
                   April 13
                                             Peru, Ayacucho and all the Province of (Andahuailas)
1861
                                                                                                                                                                ш
                                                         P. & H.J.
1861
                   April 27
                                             West Indies, Jamaica, Montego Bay, Kingston
                                                                                                                                                    H
                                                                                                                                                             Ρ.
                                             Algeria (Constantine), Biskra I P.
Italy, Citta della Pieve, Cetona and other places in
(Perugia) II B.
                   April 27
1861
                                             Italy, Citta uc....
(Perugia) II
1861
                   May
                                             Caucasia, Shusha, Sardob, Shemaka II P.
Java (Krawang), Pakis; sea waves I P.
U.S.A., California, San Francisco, Valley of Amador,
Oakland I P.
1861
                   May 24
1861
                   June
                   July
                                 3
1861
                                             Sumatra, Benkoelen
                                                                                           I
1861
                   July 10
                   July 12
July 31
Aug. 3-6
                                             Canada, Ottawa, Montreal I P.
India, Benares II P. Not given by Ol.
1861
1861
                                             Guatemala, Antigua, Jalpatagua I P. & Mon.
Philippines, Manila I P. Not given by S.M.
1861
                   Aug. 21
Aug. 23
Aug. 26
1861
                                             Guatemala, La Antigua, Amatitlan, San José
India, Benares I P. Not given by Ol.
1861
                                                                                                                                                       Mon.
1861
                                             Guatemala, Conguaco, Jalpatagua (Jutiapa)
Argentina, San Carlos I Mon.
                   Aug. 27
Aug. 29
Sept. 25
1861
1861
                                             Sumatra, Padang, Indrapoera, with sea waves I P.
1861
1861
                   Oct. 16
                                              Italy, Forli I B.
                                             Spain, Alicante I P.
Italy, Potenza (Basilicata) I B.
Italy, Torre del Greco, Resina and Naples, near Vesuvius
I B. & P.
1861
                   Oct. 17
                 Nov. 19-28
1861
1861
                   Dec.
                                9
                                             Caucasia, Alkan-yhurt 42°18N. 45°E., Samasha I M.
1861
                   Dec. 17
                                                          & 0.
                                             Austria, Croatia I P.
Greece, Corinth, Aigion, Vostizza, Galaxidi II P.
Formosa, Toroku II H.
 1861
                   Dec. 18
                   Dec. 26
 1861
 1861
                                              Greece, Athens, Patras, Aigion or Vostizza I P.
 1862
                    Jan.
 1862
                 Jan. 12-31
                                              Siberia, Mouth of R. Sclenga, Irkutsk, Selenginsk, Verkne-
                                                         Identify and the state of the s
                                             Hungary, Shenmitz, Nepomuk
China (Yunnan), Tali Fu III
Siberia, Selenginsk I P. A
 1862
               Jan. 13
Jan. to Feb.
                                                                                                               Ho.
 1862
 1862
                    Feb.
                                 5
                                                                                                         A continuation of Jan. 12-31.
                                              Argentina, Mendoza, several people killed
 1862
                    Feb.
                                 5
                                                                                                                                        II P.
                    Feb. 22
                                              New Zealand I P.
 1862
                                              Siberia, Lake Baikal<sup>a</sup> I
 1862
                    March
                                                                                        Philippines, Manila and neighbouring
 1862
                    Mar.
                                              9h. 30m., G.M.T. Phili
provinces I S.M.
                                              Germany (Rhine), Liedberg, Gladbach I P.
 1862
                    Mar. 18
                                              Siberia, Selenginsk I M. & O.
                    April 28
 1862
                                              Strong earthquakes at Siberia, Selenginsk in 1803, 1811,
                                                          1815, 1818, 1829 and 1839 P.
 1862
                                              Switzerland, Valais, Visp, and Valley of the Rhone, Viège,
                    May
                                              Stalden, Zermatt I P.
Chile, Tacna to Arica II P. & Mon.
                    May 20
 1862
                    May 24
                                              Java, Provinces of (Krawang, Preanger), Poerwakarta I
 1862
                                               Asia Minor, Marmarizza I
Austria, Tyrol, Kalkstein
  1862
                    May 24
                    May 26
  1862
                                              Switzerland, Valais, St. Nicholas I P.
Austria, Carinthia, Heiligenblut, Döllach I
  1862
                     May 27
                     May 27
  1862
                                              Peru, Callao, Lima I P.
Formosa, Tainan, Kagi, Shoka III H.
Algeria, Relizane I P.
Chile, Tacna and Arica I Mon.
                     May 28
  1862
  1862
                     June
  1862
                     June
                                  8
                     June 20
  1862
  1862
                                               Philippines, Island of Guam, Ladrones Islands I S.M.
                     July
  1862 .
                     July 10
                                               Gold Coast, Accra, Jamestown and again on the 28th III
                                                           P. & O.D.
                                               Peru, Casma I
  1862
                     July 11
                                                                                    P.
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A.D.
1862
            July 13
                            Philippines, E. Luzon, along coasts of Baler and Casiguran
                                       S.M.
                            Gold Coast
                                            11
            July 14
                                                  O.D.
1862
                            Spain (Seville), Villa Nueva II P.
8th, 19h., G.M.T. Philippines, N. Luzon (Ilocos Norte,
            Aug. 22
1862
1862
            Sept. 9
                                    Abra and Cagayan) provinces, Laoag, Aparri II
                                   P. & S.M.
1862
            Oct.
                   15
                            Moluccas. Banda
            Oct.
                             Asia Minor, Afiun-Karahissar II P.
1862
                   16
                            Caucasia, Shemaka I P.
4h. 30m., G.M.T. Philippines (Laguna), South of Lake
                   29
1862
            Oct.
                   30
1862
            Oct.
                                    Bay I S.M.
                                               Smyrna,
1862
            Nov. 3
                            Asia
                                   Minor,
                                                             Chekoud-Cassaba in (Isbarta),
                                                            III P.
                                    Afiun-Karahissar
1862
            Nov. 22
                            Austria, Krema I P.
Algeria, Takitount I
1862
            Nov. 26
                                                          P.
                            Asia Minor, Smyrna, Chio, Metelin
Caucasia, Shemaka I M. & O.
            Nov. 29
1862
                                                                               Ρ.
1862
            Nov. 29
Dec. 19
                            West Indies, Guadeloupe, Pointe-à-Pitre, Sainte Marie
1862
                                   I. P.
            Dec. 19
1862
                            Caucasia, Shemaka, Lenkoran, Shusa, Zournabad
                            Central America, Guatemala, Nicaragua, Antigua, Amatitlan, Escuintla, Port of San José; also felt in Hon-
            Dec. 19
1862
                                    duras and throughout Salvador III P. & Mon.
1862
            Dec. 21
Dec. 27
                            Persia, Shiraz II P.
                             U.S.A., California, San Francisco I P.
1862
                            Mauritius, Port Louis I P.
Hungary, Voros, Pencz, Foth, Buda I I
Italy, Montecassino, S. Germano (Caserta)
1863
            Jan.
1863
            Jan. 17
            Jan. 19
Jan. 22
Jan. 30
1863
1863
                            Austria, Croatia, Karlstadt, Cilla
                            Italy, Casamicciola I C.V.

New Zealand, Hawkes Bay, Province of (Napier) I P.,
O.D., & T.
1863
1863
          Feb. 22-23
                            Switzerland, Valais, Graechen
1863
           Feb. 3-27
                                                                      I P.
                            Java, Serang I P.
Italy, Ischia, Casamicciola I C.V.
Philippines, Iloilo, Antique I P.
Spain, Granada, Alberdan, Gojar and Ojijares
1863
            Mar. 16
           Mar. 22
April 5
1863
1863
            April 17
1863
                                                                                         1
            April 22
                            Asia Minor, Rhodes Island, 13 villages destroyed; Smyrna
1863
                                   and Island of Cos III P. & Ti.
                            Italy, Ischia, Casamicciola I C.V.

11h. 20m., G.M.T. Philippines, S. Luzon, Manila, and neighbouring provinces III S.M. & Ti.

Philippines, S. Luzon, Manila I S.M.
1863
            April 27
1863
           June 3
1863
            June 9
                            France (Lower Alps), Digne, Beynes I P.
Spain, Almeria, Albox, Arboleas, Vera, Huercal-Overa I P.
1863
           June 9
          June 20-27
1863
            June 29
                            Peru, Arequipa I Mon.
1863
                    9
                            Spain (Almeria), Seron I
West Indies, Trinidad II
                                                                P. Same series as June 20.
1863
            July
           July 10
                                                                O.D.
1863
                            West Indies, Trinidad
                            Java, Banjoemas I P.
            July 31
1863
                            Spain (Granada),
1863
                                                   Albunol, Albondon, Mamola, Castel de
           Aug.
                                            I P.
                                   Ferro
                            Java (Preanger), Manondjaja, Tjie-Kandjang and Ban-
joemas, Soeka-Radja I P.
Asia Minor, Rhodes Island, Archangelo I P.
1863
            Aug. 13
1863
            Aug. 16
                            Turkey, Dardanelles, Jenidji and Saritchaban
1863
           Sept. 2
1863
           Sept.
                            Algeria, Aumâle I P.
                            Angerra, Admate F.
Philippines, Luzon (Leyte) I P.
England, Cheshire, Dudley I M.
Hungary, Mur Valley I P.
Philippines, Luzon, Tacalaban II
           Sept. 27
1863
                                                                      M. & W.
1863
           Oct. 6
Oct. 20
1863
            Oct. 27
1863
                            Turkey, Constantinople, Gallipoli, Guemlek, Oumourbey,
Brussa II P.
1863
           Nov. 6
1863
           Nov. 24
                            Asia Minor, Anatolia, Boli
                                                                Ι
                           Ladrones, Guam I S.M. Moluccas, Banda I P.
1863
            Dec.
                                                        S.M.
            Dec. 11
1863
                           Asia Minor, Rhodes Island, Makri I P.
Persia and Caucasia, Ardebil, also felt at Lenkoran, Kara-
bagh and Shirwan III P., M. & O.
           Jan. 2-11
1864
1864
           Jan.
                    3
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Philippines (Cotabato, Zamboanga), Illana Bay I S.M.

1864

Jan. 3

1865

Nov. 25

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A.D.
1864
              Jan.
                                Persia, near Ardebil, four villages destroyed III
1864
                       ß
                                Austria (Carniola), Sagori I P.
Asia Minor, Makri II P.
              Jan.
           Jan. 10-11
1864
                                Spain, Murcia, Lebrilla to Carthagena, Alhama I P.
2h. 9m., G.M.T. Chile, Copiapo, Tierra-Amarilla, Ojan-
1864
              Jan. 12
              Jan. 12
1864
                                        cos, Nantoco, Chanarcillo, Totoralillo, Pavillon, etc. III P. & Mon.
                                China, Hankow III P., M. & O.
West Sumatra, Padang, Batu Island (Mandheling and
Angkola), Penjaboengan with sea waves III P.
1864
              Jan.
1864
              Feb. 16
                                Canada, B.C., Thornes-creek II Ti.
Italy, Vergato, Tole, Savignano, etc., in the Apennines of (Bologna) I B.
1864
              Feb. 16
Feb. 28
1864
          Feb.-Mar.
1864
1864
              Mar. 22
                                 U.S.A., San Francisco, Santa Clara I P.
                                          (Kiangsu), Shanghai, Nanhui, Sungchiang Fu,
1864
              May
                                China
                                Chiating, Taitsang I Ho.
West Indies, Haiti, Jacmel II
1864
              May 19
May 20
                                Sumatra, Benkoelen I P.
New Guinea, Dorei, Mt. Arfaks
1864
              May 21
1864
                                                                                П
              June 6
1864
                                Sumatra, Siboga
                                                          I P.
1864
              June 14
                                Turkey, Salonica to Gallipoli I
                                Asia Minor, Enos Island, Mais Island near Rhodes I P. Java, Toeban at Rengel I P. Turkey (Moldavia), Kalarach II P.
              July 7 ca.
July 20
1864
1864
1864
              Aug. 14
                               Turkey (Moldavia), Kalarach II P.
Canada, B.C., Vancouver, Victoria I P.
Mexico, Vera Cruz, Puebla, Tlaxcala, Soledad, Téchuacan,
Orizaba and Cordoba III P.
Greece, Lamia, Rolan I P.
British Columbia, Victoria and New Westminster I P.
Asia Minor, Bagdad, Zarbotia, Bassorah, Bedra-Djessan,
Mondeli II P.
1864
              Sept. 26
1864
              Oct.
            Oct. 28
Oct. 29
Dec. 2 to 26
1864
1864
1864
                                Mendeli II P.
Sumatra, Padang, Taloe I P.
              Dec.
1864
                                France, St. Amand-de-Boixe, Montignac I P. Italy (Tuscany), Mugello I B. Sumatra, Tagal, Boemic-Ajoe I P.
1864
              Dec.
             Dec. 12
Dec. 26
1864
1864
1864
          Dec. 28 or 31
                                Italy (Apulia), S. Nicandro-Garganico in Foggia I B.
1865
             Jan. 27
Mar. 22
                                England, Gloucester I M. & W. Turkestan, Merke I M. & O.
1865
                                West Indies, Kingston, Jamaica I Ti.
11h. 23m. a.m. W. Sumatra, Padang and Benkoelen
              April 11
1865
                                11h. 23m. a.m.
O.N.T.
1865
              May
1865
              May 16
                                Austria, Paasdorf, 27 miles N.N.E. of Vienna I
1865
              May 17
                                2h. 49m. p.m. Java, Ruins of Tjandie-Sewoe and Pram-
                                        banan in Soerakarta II O.N.T.
                             11h. 14m. p.m. Java, Joenoeng-Tigá in Tegal, Kedieri,
Tjilatjap in Banjoemas, Kadoe, Madoera and other
districts II O.N.T.
1865
             May 18
              May 22
1865
                                Siberia, Selenginsk, Irkutsk, Verkneudinsk I M. & O.
              May 26
                                Formosa, Manca I F.
Siberia, Simbrisk, Porezkoje II F. & Ti.
Austria, Styria, Fürstenfeld, Pöllau I Ti
1865
             May 27
July 13
1865
1865
                                Java, Ambarawa, 6 and 7 p.m., Banjoe-Biroe and else-
where in Semarang II O.N.T.
1865
              July 16
                                where in Semarang II O.N.T.
Italy, Sicily, Fondo di Macchia, Baglio, Rondinella, etc.,
near Etna II B.
1865
              July 19
1865
              Sept. 21
                                Italy, Citta di Castello (Perugia) II B.
China (Shantung), around the Taishan III F., M. & O.
              Sept. 25
1865
                                        & Ti.
1865
              Oct.
                                Mexico, Amecameca I O.B.
1865
              Oct.
                       8
                                U.S.A., San Francisco, Santa Cruz, Sacramento, Stockton, San José II F.R.
              Oct. 18,
                                Sumatra (Bangka), Bellinjoe I O.N.T.
Asia Minor, Chios III F., Ti.
22nd, 20h., G.M.T. Philippines, Manila and adjacent provinces I S.M.
1865
             19, night
1865
            Nov. 11-14
              Nov. 23
1865
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1h. 40m. and 2h. 40m. p.m. Celebes, Tondano and Kema and throughout (Minahassa) III O.N.T.

A.D.	D 15	Warman I. Communication of the
1865	Dec. 15	Venezuela, Caracas, La Guayra, P. Cabello, Valencia II F.
1865	Dec. 19	India, Chittagong and Bengal I Ol.
1866	Jan. 2	Mexico, Acatzingo, San-Andrés-Chalchicomula in Vera Cruz,
		Puebla, Oaxaca, Cordova, Orizaba, Tehuacan, Mattrata 111 F. & Ti. O.B. gives I
1866	Jan. 19-21	Asia Minor, Chios I F. & Ti.
1866	Jan. 29	Germany, Pomerania, Rekow near Bütow I F.
1866	Feb. 1 & 21	Germany, Pomerania, Rekow near Bütow I F. Italy, La Vene (Spoleto) I B.
1866	Feb. 2	Asia Minor, Chios I F. Greece, Patras I F.
1866	Feb. 6	Greece, Patras 1 F.
1866	Mar. 2 Mar. 8	Turkey, Epirus, Albania, Avlona and Pollina III F. Siberia, Verkneudinsk and Irkutsk I M. & O.
$\begin{array}{c} 1866 \\ 1866 \end{array}$	Mar. 8 Mar. 9	oh. 40m., G.M.T. Norway, Prefectur of Trondhjem I
1300	mar.	O.D.
1866	Mar. 12	Japan (Harima, Tanba) II Mi.
1866	Spring	Formosa, Tamsui I H.
1866	Mar. 20	Asia Minor, Chios I F.
1866	April 22	11h. 9m. a.m., ca. Java, Willem and Banjoe-Biroe in Semarang I O.N.T.
1866	May 23	India (Nepal), Katmandu; (Bengal), Monghyr, Jubbulpore
1866	May 25	II Ol. China (Chehkiang), Chenhai, Ningpo in Ningpo Fu I Ho.
1866	June 24	Ladrones, Guam I S.M.
1866	June 29	Lat. 31°N. 40°W. I Ti.
1866	July 23	Chile, Copiapo I Mon.
1866	July	Asia Minor, between the Euphrates and the Tigris III F.
1866	Aug. 11	Italy, Monte Baldo (Verona) I B.
1866	Aug. 25 or Sept. 6	Siberia, Petropavlovsk and Lyersny II M. & O.
1866	Sept. 5	H.S.A. Alaska, Kodiac, H. Ti.
1866	Sept. 26	5h. 37m. p.m. West Indies, Trinidad 1 U.D.
1866	Sept. 30	Java (Banjoemas) I O.N.T. China (Shantung), Chucheng, Chingchou Fu; (Kiangsu),
1866	Oct. 23	China (Shantung), Chucheng, Chingchou Fu; (Kiangsu),
		Chiating in Taitsang, Shanghai, Sungchiang in Sung- chiang Fu I Ho.
1866	Nov. 4	Russia (Bessarabia), Soroki I F.
1866	11011	U.S.A., Kansas, Wamego I F.R.
1866	Dec. 1	2 b.m., ca. W. Sumatra, Tatoe, Padang 1 U.N.T.
1866	Dec. 29	28th, 19h., G.M.T. Philippines, N. Luzon (Ilocos Norte),
1867	Jan. 2	Lacag II S.M. Algiers, Algiers, Blidah, Chiffa, El Affraun, El Aim, Ben-
1001	oan. 2	rasmi, Monzaiaville III F. & Ti.
1867	Jan. 5	1h. 45m., G.M.T. Philippines (Albay) I S.M.
1867	Jan. 12	rasmi, Monzaiaville III F. & Ti. 1h. 45m., G.M.T. Philippines (Albay) I S.M. China (Kiangsu), Chiating in Taitsang, Shanghai, Sung- chiang in Sungchiang Fu I Ho.
1867	Jan. 31	France Chablis Plants I F
1867	Feb. 4	Greece, Cephalonia, Lixuri, Argostoli, Cosmopoli III
100.	100. 1	Greece, Cephalonia, Lixuri, Argostoli, Cosmopoli III F. & Ti.
1867	Mar. 7-16	Asia Minor, Mitylene, 3,000 houses destroyed, Lesoos
1867	Mar. 14	III F. China, Hankow I Ti.
1867	Mar. 15	Switzerland, Lake Maggiore, Feniolo I F.
1867	Mar. 21	Salvador, Guiamoco 11 Mon.
1867	Mar. 26	5h., G.M.T. Philippines (Ilocos Norte) I S.M.
1867	April 2	Salvador, San Salvador II Mon.
1867	April 15	Germany, Essen I F. U.S.A. (Missouri), Kansas I Ti.
$\begin{array}{c} 1867 \\ 1867 \end{array}$	April 29 May 5	U.S.A. (Missouri), Kansas I Ti. China, Pekin I M. & O.
1867	May 5 May 7 & 8	Siberia, Selenginsk I M. & O.
1867	May 14	Siberia, Selenginsk I M. & O. Switzerland (Vaud), Yvonand I F.
1867	May 14 May 31	Azoros Sorota Raminho I E.
1867	June 9	9h. 9m. p.m. Java, Djokjakarta, Bojolali, and Klatten, and all over Java except the Preanger III O.N.T.
1007	Inn - 20	and all over Java except the Preanger III O.N.I. Austria, Littai near Laibach I F.
$\frac{1867}{1867}$	June 30 July 3	
1867	July 23	Cancasia Tolof 41°55N 45°29E. Shemaka, Mukhran,
	,	Zurnabad 40°30N. 46°14E., and Elizabetopol 40 40N.
		46°20E. I M. & O.

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A.D.
1867
                            Salvador, San Salvador
                                                            I Mon. & Ti.
       June 30-July 7
1867
          Aug. 15-16
                            Italy, Casamicciola, Island of Ischia I
                                                                                В.
                            Greece, Patras, Candia I Ti.
1867
           Sept. 9
1867
           Sept. 20
                            Greece, Magelang, Solo, Messenia and Lakonia, Gytheion II F.
                                          Ti.
1867
         Near end of
            Sept.
Nov. 3
1867
                            1h. 50m. a.m.
                                                 Moluccas, Ternate, Tidore and Halmaheira
                                   I O.N.T.
                           I O.N.T.

2h. 30m. p.m., local. West Indies, Virgin Islanus, Thomas, St. Johns, St. Croix; sea waves II Ti., & O.D.

Italy, Resina, Torre del Greco in (Naples) I B.
1867
            Nov. 18
                                                          West Indies, Virgin Islands, St.
1867
            Nov. 25
                            Formosa, Kelung, Tamsui III Ti.
1h. 11m., G.M.T. Philippines, Samar Island
1867
            Dec. 18
Dec. 27
1867
                                                                                             S.M.
            Dec. 31
                            Iceland, Skalfandi, Husavik and Akureyri, a few houses
1867
                                                       Th.
                                   destroyed II
                            China (Chehkiang), Chenhai in Ningpo Fu I Ho.
Italy, Monte Amiata in (Siena) I B.
Russian Turkestan, Tashkent II M. & O.
1868
          Jan. 16-20
            Jan. 17
1868
1868
            Feb:
                            Caucasia, Akhalkalaki, Kwirily, Toporwan and Ardahan
in Kars Province I M. & O.
Armenia and Caucasia, Erzerum, Alexanderopol, Akhalka-
1868
            Feb. 18
1868
            Feb. 25
                                   laki II M. & O.
                            West Indies, St. Thomas I
Caucasia, Telaf, Delishan,
1868
                                                               I Ti.
            Mar. 17
                                   isia, Telat, Delishan, Shusha, Jebrail, Sakataly, Shemaka, Belasuwar, Chatakh I M. & O.
1868
            Mar. 18
1868
                            Russia, Grosnyi and Galachewsk Station
                                                                                       M. & O.
            Mar. 21
 1868
            Mar. 27
April 4
                            Sandwich Islands, Mauna Loa III F. Philippines, Leyte Island I S.M.
 1868
                            Sandwich Islands II F. See Mar. 27.
 1868
            April
 1868
                            Russian Turkestan, Tashkent II M. & O. Sandwich Islands, IIilo with sea waves II
            April 4
1868
                    4
            April
1868
                            Mexico, San José de Iturbide in San Luis Potosi
                                                                                                 O.B.
            April
 1868
            April 11
                            Armenia, Kars and Nizhni-Pasin, Erzerum, Tiflis
                                                                                                    М.
                                   & O.
1868
            May 22
                            Mexico, Iturbide, Jalisco, Oaxaca, Puebla, Mexico, Tehuan-
                                   tepec II O.B.
                            Mexico, Acapulco I
                                                         0.B.
1868
            May 25
1868
            June
                            Peru, Socalor or Socota? I
                            Austria, Hungary, Jasz Bériny, Pesch I Ra.
0h. 11m., G.M.T. Philippines, Panay Island, Iloilo
            June 21
1868
            June 27
1868
                                   S.M.
                            Germany, Essen I F.
Russia, Tsogonoi village 42°53N. 45°33E., Terek province
II M. & O.
1868
            June 29
1868
            June 30
1868
                    7
                          5h. 1m., a.m., local. West Indies, Trinidad
France, near Paris, Meudon, Bellevue I F.
            July
                                                                                        I 3
                                                                                              O.D.
            Aug. 10
1868
                            S. Peru, Bolivia, and N. Chile, E. to Paz, N. to Lima, with sea waves from Truxillo to Concepcion, Arequipa,
1868
            Aug. 13
                                   Tacna, Arica, Iquique, Moquegua, Locumba, also at Copiapo, Pisagua, Chincha III F. & Ti.
                            Ecuador, Colombia, Guayaquil, province of (Pinchincha),
Imbabura, Ibarra, San Pablo, Atuntaqui, Quito III
1868
            Aug. 16
                                    F. In Ecuador 40,000 and in Colombia 30,000 lives
                                    were lost.
                             New Zealand, Taranaki II
Bolivia, Cosapillo ? II F.
 1868
            Aug. 17
                                                             H
 1868
            Aug. 19
                                                       Ol.
 1868
                             India, Peshawar I
            August
                            Hungary, Jasz Béreny I F.
6h. 31m., p.m. Java, Tjamisin in (Cheribon), Bandeong
and Garoet in the (Preanger) II O.N.T.
 1868
            Aug. 20
Sept. 17
 1868
 1868
            Oct. 12
                            Chile, Copiapo I Mon.
New Zealand, Hokitika, Nelson, Waitaho, Taranaki
 1868
            Oct. 18
 1868
            Oct. 19
                            Mexico, Guerrero, Oaxaca, St. Catharina, Albarradas
                                   F.
 1868
            Oct. 21
                             U.S.A., California, San Francisco, Oakland, San Leandro,
                                    San José, Redwood City, S. Clara, S. Cruz, S. Matteo,
                                    and north of San Francisco, San Rafael, Petaluna,
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S. Rosa, Sacramento III F. & F.R.

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A.D.
                           New Zealand, Taranaki II Ti. See Oct. 18.
China (Kiangsu), Chenchiang Fu; (Anhui), Chihchou Fu,
Hochin in Yingchou Fu I Ho.
1868
           Oct. 26
1868
          Oct. 29-30
                           Iceland, Faxafloi, Reykjavik, Börgarfjördr; some houses
damaged I Th.
          Nov. 1-2
1868
                           Mexico, S. Luis Potosi, Iturbide II
1868
           Nov. 1-6
                                                                           F.
           Nov. 5
Dec. 20
                           Chile, Copiapo II Ti.
1868
                           Mexico, Colima, Manzanillo III F. Ti. giv
India, Assam, Silchar, Cachar III F. & Ti.
                                                                            Ti. gives II
1868
           Jan. 10
1869
                           Italy, Siena I B.
1869
           Feb.
                    7
        Beginning of
                           Hungary, Csik-szek I F.
Colombia and Northern Venezuela, Bogota, Magdalenen-
stromes and Branco III R.S.
1869
           Feb.
          Mar. 6 & 11
1869
                           England, East Lancashire and borders of West Yorkshire
1869
           Mar. 15
                                  I R.
                           Argentina, Mendoza I Mon.
Italy, San Giovanni, Rotondo (Foggia) I B.
1869
           Mar. 29
1869
            Mar. 31
         Early in the
                                                                1 F.
1869
                           Austria (Dalmatia), Ragusa
             year
            April 18
                           Asia Minor, Rhodes Island, Symi, Kalymnos
                                                                                       П
                                                                                          F.
1869
           April 29
                           Chile, Talca I Mon.
1869
                           India, Peshawar I Ol.
1869
           April
           June 11
June 25
                           New Zealand, Christchurch and Lyttelton
                                                                                       Ti.
1869
1869
           June 29
                           Italy, Vergato, Zocca, Casio in (Bologna)
Peru, Arequipa I Mon.
                                                                                      В.
1869
                           India (Nepal), Katmandu
                                                              III Ol.
1869
                           Peru and Chile, Lima, Callao, Iquique I
7h., G.M.T. Philippines, Masbate Island
1869
           Aug. 15
1869
          Aug. 16
                                                                                  Ш
                                                                                         S.M.
                           Russia, Saratow, Sokalowberg II F. Eqke.?
1869
            Aug. 17
                           Peru, Chile, Arica and Ica; sea waves 1 Mon.
Peru, Chile, Tacna, Arica, Iquique, Pica; sea waves
F., Mon. & H.J.
1869
           Aug. 19
          Aug. 20-24
1869
                           Caucasia, Shemaka, most violent in Sundi, 12 miles from
Shemaka III M. & O.
West Indies, St. Thomas II F. & Ti.
1869
           Sept. 2
           Sept. 17
Sept. 26
1869
                           Italy, San Geminiano in (Siena) II B.
3h. 35m., G.M.T. Philippines, S. Luzon, Manila (Rizal,
Laguna, Bulacan, Cavite, Batangas) and Northern
1869
            Oct.
1869
                                  Mindoro II S.M.
                           Russia, Crimea, Feodossia, Sudak, Jalta I F. Austria, Carniola, Radmansdorf I F.
1869
            Oct. 11
1869
            Oct. 13
                           U.S.A., all over New England States, Fredericton in
New Brunswick III F.R. Ti. gives I
1869
            Oct. 22
                                  New Brunswick III F.R. Ti. gives I
30m., G.M.T. Philippines, S. Luzon (Lagua)
                   23
            Oct.
1869
                           8h.
                                  S.M.
            Oct. 26
1869
                           Chile, Cobija I Mon.
                           Germany, Russelsheim, Mannheim, Heidelberg, Wies-
            Oct. 31
1869
                                  baden I F.
ia, Valley of the Bargusin River, Lake Baikal
                           Siberia, Valley of the Bargusin Miver, Land
M. & O.
Germany, Mannheim, Grossgerau, Darmstadt
1869
            Nov. 1
            Nov.
                                                                                      1 F. & Ti.
1869
                    3
                           Peru, Arequipa I H.J.
1869
            Nov.
                           Algeria, Biskra, Seriana, Sidi Alba III F.
Italy, Monteleone, Nicastro and neighbourhood in (Calabria) I B.
            Nov. 16
1869
            Nov. 28
1869
            Dec.
                           Asia Minor, Onlah, Marmaritsa, Mulla, Smyrna, Rhodes
III F.
1869
                    1
                            Russian Turkestan, Kojent I M. & O.
1869
            Dec. 10
            Dec. 20
                                                    I Ol.
1869
                            India, Rawalpindi
                           Caucasia, Tiflis, Alexandropol, especially villages Malye,
Jamzhili and Jaushtan III M. & O.
1869
            Dec. 26
                            U.S.A., California and Nevada City, Sacramento, Virginia
1869
            Dec. 27
                                  City, Stockton, Truckee, Marysville II F. & F.R.
                           Greece, Corfu, St. Maura Island III F. & Ti. Hungary, Pressburg, Tyrnau I F.
1869
            Dec. 28
1870
            Jan.
                            Italy, Gallignano, Osimo, Capodimonte, etc., in (Ancona)
I B.
1870
            Feb.
                    8
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Asia Minor, Makri, Rhodes II F.

1870

Feb. 22

A.D.	W 1	Andria Charlie Teles Thomas T. 14 M. W.
1870	Mar. 1	Austria, Croatia, Istria, Lissacz near Karlstadt, Volosca, Trieste, Clana near Fiume II F.
1870	Mar. 2	1st, 19h., G.M.T. Philippines (N.E. Samar) II S.M.
1870	Mar. 25	Argentina, Mendoza, I. Mon. E. vives 29th
1870	April 11	China, Bathang II Pa., F. & Ti.
1870	April 22	India, Dacca I Ti.
1870	April 23	Chile, Calama I Mon.
1870	May 11, 12,	Mexico, Vera Cruz, Puebla, Mexico, Oaxaca, Ejutla and
	& 16	south to Tabasco III O.B., F., & Ti.
1870	May 13	Ladrones, Guam I S.M.
1870	May 23	15h. 55m., G.M.T. Philippines, N. Luzon (Ilocos Norte,
		Laoag, Cagayan, Isabela and northern mountain provinces) II S.M.
1070	Tana - 1 11	provinces) 11 S.M.
1870	June 1-11	Guatemala, Guatemala, towns and villages destroyed III
1870	June 4	Mon. Colombia Rogata at 0.50 n m. local I O.D.
1870	June 24	Colombia, Bogota at 9.50 p.m., local I O.D. Syria and Egypt, Damascus, Cairo, Zebedani, Cyprus,
1010	June 24	Crete, East Coast Red Sea I F.
1870	July 1	Greece, Santorin Island III Ti.
1870	July 7 & 8	Russia, Eastern shore of Black Sea I M. & O.
1870	July 11	Bolivia II F.
1870	July 12	Asia Minor, Smyrna, Crete, Cyprus, Tiflis I F. Ti.
		gives Tiflis only.
1870	July 12	Salvador and Honduras Santa Rosa II Mon
1870	Aug. 1	Greece, Athens, Corinth, Patras, Harbour Itea, Chrusos,
	· ·	Greece, Athens, Corinth, Patras, Harbour Itea, Chrysos, Pyraeus, Kalchis III F. & Ti. Italy, Manyone, Cellara, S. Stefano, other towns in
1870	Oct. 5,	Italy, Mangone, Cellara, S. Stefano, other towns in
		(Cosenza) and the chief town usen 111 h.
1870	Oct. 20	Canada, Quebec, Baie St. Paul, Toronto, also New York
		(Maine) I Ti. & O.D. Greece, Athens I Ti.
1870	Oct. 25	Greece, Athens 1 Ti.
1870	Oct. 28	India, Smd 1 O.D.
1870	Oct. 30	Italy, Meldola, Teodorano, Castrocaro and other places in
1870	Nov. 4	(Forli) II B.
1010	NOV. 4	3rd, 20h., G.M.T. Philippines, Central Mindanao, epicentre
1870	Dec. 21	between the Gulf of Davio and Misamis II S.M. Peru, Arequipa I Ti.
1871	Jan.	S. Pacific, Sunday Island I F.
1871	Jan.	Mexico (Tepic), Ahuacatlan, Lextlan, Taba III F.
1871	Feb. 9	Germany, Darmstadt I Ti. F. gives 10th.
1871	Feb. 14, 16?	Germany, Darmstadt, Lorsch I F.
1871	Feb. 19	Sandwich Islands I Ti.
1871	Feb. 21	20th, 20h., G.M.T. Philippines, Camiguin Island, Mam-
		bajao, Catarman III S.M.
1871	Feb. 22	Peru, Puno I H.J.
1871	Feb. 23	Bolivia, Province of (Cochabamba), San Antonio II
		Mon.
1871	Mar. 4	Siberia, Irkutsk Govt. and (Transbaikal) Prov. and North
1871	Mar. 19	Mongolia I M. & O. Sandwich Islands, Honolulu II Ti. See Feb. 19.
1871	Mar. 15 Mar. 25	
1011	Mar. 49	14h. 46m., G.M.T. Chile, Santiago and Valparaiso, Talca I Mon. & Ti.
1871	Mar. 27	3h. 44m., a.m. Java, Bandjarnegara and elsewhere in
10.1	MICHEL 21	Banjoemas, Kadoe II O.N.T.
1871	April 11	China, Bathang, 2,300 lives lost III F.
1871	May 25	Malacca, Bintang Island III Ti. Not given by O.N.T.
1871	June 28	27th, 21h. 30m., G.M.T. Philippines, S. Mindanao, Davao
		I S.M.
1871	July 11	13h. 19m., G.M.T. Philippines, Luzon, N. of 16° of N.
		Lat. II S. M.
1871	July 29	Italy, Montescudaio, Guardistallo and Bibbona in (Pisa)
1077	4	II B.
1871	Aug. 2	Peru, Arequipa I H.J.
1871	Aug. 18	12h. 51m., p.m. West Sumatra (Palembang), Benkoelen,
		and all the west coast of Sumatra, Batavia in Java,
1871		Lingga, and Ternate II O.N.T. West Indies, St. Thomas III Ti.
1011	Δ110 91	
1871	Aug. 21	West Indies, St. Thomas III Ti.
1871 1871	Aug. 21 Aug. 21 Sept.	West Indies, St. Thomas III Tr. Peru, Callao; sea waves I F. West Indies, Tortola Island III F.

A.D. 1871	Oct. 4	12h. 30m. G.M.T. Philippines, S.E. Mindanao, Davao,
1871	Oct. 5	District, Caraga II S.M. 9h. 46m., G.M.T. Chile, Iquique, <i>Tarapaca</i> , Pica and Matilla I J.H. & Mon.
1871	Oct. 13	Mexico, Manzanillo in Colima I O.B.
1871	Oct. 23	3h. 16m., G.M.T. Argentina, Oran, Jujuy III F. & Mon.
1871	Oct. 22	Italy, Chianti (Siena) I B.
1871	Nov. 5	1h., G.M.T. Philippines, N.E. Mindanao (Surigao), Bislag, Caraga 11 S.M.
1871	Nov. 29	8h. 30m., G.M.T. Philippines, Basilan, Jolo Islands II S.M.
1871	Dec.	Spain, Cordova, also Oran III Ti.
1871	Dec. 8 & 9	8th, 9h. 30m. and 23h. 30m., G.M.T. Philippines, W. Mindanao, Cotobato, Lanao and Davao districts, Cotobato, Pollok III S. M.
1871	Dec. 11	Caucasia, Gulija, 39°57N. 43°30E., 56 miles west of Erivan and in the Echmiadzin district II M. & O.
1871	Dec. 19	14h. 30m., G.M.T. Philippines, E. Mindanao (Surigao to Davao) II S.M.
1872	Jan. 9	Canada, Quebec I Ti.
1872	Jan. 11	Oh. 1m., G.M.T. Peru, Arequipa I H.J.
1872	Jan. 17	Caucasia, Shemaka II F.
1872	Jan. 26	11h. 30m., G.M.T. Philippines, W. Luzon, north part of
1872	Jan. 27-30	(Zambales), Agno, Bolinas II S.M. 27th, 8h. 30m., G.M.T. Philippines (Ilocos Norte) I
1872	Jan. 28-Feb. 19	S.M. Caucasia, Shemaka and neighbourhood III M. & O. & Ti.
1872	Mar. 6	Germany, Dresden, Schönebeck I F.
1872	Mar. 13	Japan (Iwami, Inaba, Hoki) II Mi.
1872	Mar. 26	U.S.A., South California, (Inyo County), Lone Pine III
1872	Mar. 27	F., F.R., & Ti. Mexico, Oaxaca, Puebla, Tlaxcala, Vera Cruz III O.B.
1872	April 3	Asia Minor, Antioch, 1,800 lives lost, Aleppo, Beirut, Damascus III F. & Ti.
1872	April 14	Gold Coast, Accra II Ti.
1872	April 18	Iceland, around Skjálfandi, many houses in Husavik and farms damaged II Th.
1872	May 14	Italy, Cividale (Udine) I B.
1872	June	Persia, Hamadan III F.
1872	July 13	9h. 31m., a.m. Java, Koeningan in Cheribon and Tjawie in the Preanger I O.N.T. Armenia, Shemaka II Ti.
$\frac{1872}{1872}$	July 15 July 22	Armenia, Shemaka II Ti. 14h. 50m., G.M.T. Philippines (Camarines and Albay) I S.M.
1872	July 24	China (Kiangsu), Chiangning Fu, Chenchiang Fu, Yang-
1872	Aug. 24	chou Fu; (Anhui), Luchou Fu II Ho. 13h., G.M.T. Philippines, Davao I S.M.
1872	Sept. 6	5th, 16h., G.M.T. Philippines, N. Samar, Catanduanes Island, (Sorsogon and Albay) I S.M.
1872	Sept. 10	12h. 20m., G.M.T. Philippines, Luzon (N. Mountain) 1 S.M.
1872	Sept. 21	China (Kiangsu), Chenchiang Fu, Paoshan, Chungming in Taitsang, Sungchiang, Chingpu in Sungchiang Fu, Chiahsing Fu; (Chehkiang), Ningpo Fu III Ho.
1872	Oct. 10	Java, Salatiga in (Semarang) I O.N.T.
1872	Oct. 30	15h. 53m., p.m. Java, Soekaboemi in the (Preanger) I O.N.T.
1872	Dec. 10	U.S.A. (Montana), Helena and Deer Lodge I F.R.
1872	Dec. 12	Italy, Montecassino (Caserta) I B.
1872	Dec. 15	India, Balchistan, Lehri, Sebri, Shikarpur in (Sind) III F. & Ti.
1872	Dec. 29	3h. 48m., G.M.T. Philippines, S. Luzon, Manila, Rizal,
		Cavite, Batangas, Bataan, Zambales provinces and Northern Mindoro II S.M.
	Dec. 29, 30,	
1872	& 31	Salvador, San Vicente I Mon. Ti. gives III
1873	Jan. 3	Mexico Morelia in Michoacan, Guanajuato, Jalisco I O.B.

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A.D.
1873
            Jan.
                             Mexico, Ucareo in Oaxaca
                                                                 II O.B.
1873
            Jan. 16
                             15h. 45m., G.M.T. Philippines (Batangas, N. Mindoro,
                             Tayabas, Cavite, Laguna) I S.M
Asia Minor, Samos Island II F. & Ti.
                                                                         I S.M.
1873
            Feb. 1-3
            Feb.
1873
                             8h. 16m., a.m. Java, Tjiamis and Salaija in Cheribon
O.N.T.
1873 Feb. 22-Mar. 19 Salvador, felt as far as Gracias in Honduras, damage 12 to
                             15 miles round the capital III Mon.
Salvador, San Salvador, St. Vincent II F.
1873
            Mar.
                             Italy (Marches), Camerino, S. Ginesio and Fabriano, also
Karlstadt in Croatia II B. & F.
5h., G.M.T., Philippines, Samar Island, S.E. part II
1873
            Mar. 12
1873
            Mar. 18
                                    S.M.
1873
            Mar. 19
Mar. 27
                             Salvador, San Salvador, St. Vincent III F. & O.D.
1873
                             China, Hongkong I F.
            Mar. 31
1873
                             30th, 17h. 58m., G.M.T. Philippines, N. Luzon (Ilocos
Norte and Ilocos Sur) 11 S.M.
1873
            April 11
                             Salvador, San Salvador, St. Vincent, 300 victims
                                    Mon.
                            Chile, Valpariaso I F. Mon. gives 14th.
Italy, Sassuolo (Modena), Reggio and Scandiano I B.
Peru, Arequipa I F. & H.J.
15h. 15m., G.M.T. Philippines, N.E. Mindoro, Romblon
Island, Marinduque Island I S.M.
Italy, Belluno, Vittorio, Alpago and many parts of
(Belluno and Treviso), and at Venice, Verona III
B.
            May. 15
May 16
June 10
1873
1873
1873
1873
            June 11
1873
            June 29
1873
                             Argentina, La Plata, Salta, Oran I F.
Chile, Cuillola, Valparaiso, Santiago, reached southwards
to Curico III Mon. & F. Ti. gives II
            July
1873
            July
1873
                             Italy, S. Donato, Picinisco, Sora and many other places in
(Caserta) II B.
            July 12
                             France, Rhone Valley, Donzère, Viviers, Montélimart I
1873
            July 19
                             7h. 53m., a.m. Sumatra, Mandheling, Natal in Batang
and over large part of West Sumatra and in Nias
1873
            Aug.
                                    111
                                          O.N.T.
                             Guatemala I Mon.
Italy, Cosenza I B.
1873
          Aug. 21-26
1873
            Sept. 11
1873
                                                            I Ti.
            Oct.
                     7
                             Germany, Darmstadt
                             5h. 8m., a.m. Sumatra, Klein Mandheling I O.N.T.
Panama, Aspinwall I Ti.
            Oct.
1873
                    7
1873
            Oct. 13
1873
            Oct. 15
                             Russia, Monastery Kopenkovat, Uman District, Kief Govt.
                                    II M. & O.
                           6 p.m., ca. Java (Malawar) Mountains and Soekaboemi
1873
            Oct.
                   18
                                    in the (Preanger) and Batavia I O.N.T.
1873
            Oct.
                   22
                             Germany, Herzogenrath I Greece, Zante I Ti. & F.
                                                                   F.
            Oct. 26
1873
                            9h. 30m., G.M.T. Philippines, S. Luzon, Laguna, Tayabas, and Marinduque Island, Mauban, Lueban, Boac II
1873
            Nov. 14
                                    S.M.
1873
            Nov. 22
                             2h. 12m., G.M.T. Chile, Santiago, Caldera, La Serena
                                   Mon.
                            Chile, Valparaiso, Santiago, La Serena and Mendoza
Mon.
1873
            Nov. 23
                            Argentina, Jujey I Mon.
Italy, Mignano and S. Pietro in Fine in (Caserta) I B.
16th, 20h., G.M.T. Philippines (Sorsogon), Masbate Island I S.M.
1873
            Dec.
                    5
          Dec. 13-14
1873
1874
            Jan. 17
1874
            Feb.
                    6
                             Venezuela, La Guayra, Petare, Caracas II Ti.
                            Italy, Aquila I B.
Japan (Tesbio), Yezo
1874
            Feb. 24
1874
            Feb. 28
Mar. 16
                            Japan (Teshio), Yezo II O.
Mexico, Ayutla, Acapulco, Chilpancingo in (Mexico),
1874
                                   Guerrero, Puebla, Morelos, Vera Cruz, origin coast
                                   of San Marcos I O.B.
1874
            Mar. 29
                            Algeria, Miliana, Cherchel
                                                                1
                                                                      F. & Ti.
1874
            April 14
                            13th, 22h. 45m., G.M.T.
16°N. I S.M.
                                                                 Philippines, N. Luzon, N. of
1874
                            Asia Minor, Diarbekir and Mardin II F.
            May 4
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A.D.		
1874	May 16	Germany, Mainz I F.
1874	June 23	China, Hongkong I Ti.
1874	June 27	Turkey, Constantinople I Ti.
1874	July 8	2h. 32m., G.M.T. Philippines, Central Luzon, Pangasinam (Union), Benguet (Nueva Vizcaya,) Casiguran Bay, (Isabela, Tarlac, Zambales, Pampanga, Nueva Egiia and Bulacay).
		nam (Union), Benguet (Nueva Vizcaya,) Casiguran
		Bay, (Isabela, Tarlac, Zambales, Pampanga, Nueva
1874	Inlex 98	rolla and Dillacan) 1 S.M.
1874	July 28 Aug. 24	Persia, Tabriz I F.
1014	Aug. 24	Russia, Nasran Fortress, 16 miles from Vladikavkas 1 M. & O.
1874	Aug. 25	24th, 22h. 30m., G.M.T. Philippines, W. Mindanao (Zam-
1011	Aug. 20	boanga and Basilan) II S.M.
1874	Aug. 25	Russia, Vladikavkas, Nasran I F.
1874	Aug. 26	West Indies, Porto Rico I Ti.
1874	Sept. 3	3h. 2m. Guatemala, Antigua, Guatemala, Chimaltenango,
		Amatitlan, Escuintla, 116 lives lost III F., Mon.,
		& O.D.
1874	Sept. 16	2h. 9m., G.M.T. Philippines, E. Luzon (Tayabas), Casi-
		guran Bay (N. Camarines, Laguna, Rizal, Bulacan,
		Nueva Ecija and Nueva Vizcaya) II S.M.
1874	Sept. 17	Italy, Parma, San Pier d'Arena and other places in the
		north I B.
1874	Sept. 26	West Indies, Antigua III Ti.
1874	Sept. 26	Italy, Randazzo in Catania I B.
1874	Oct. 7	Italy, Tossignano, Modigliana, Firenzuola and other places
1874	Oct 17	in (Romagna) I B.
1874	Oct. 17 Oct. 18	Malta I Ti. Afghanistan, Cabul III F.
1874	Oct. 18	Afghanistan, Cabul III F. Chile, Valparaiso, Santiago I Ti.
1874	Oct. 26 Nov. 7 & 8	France, Nièvre, Corvol-l'Orgueilleux I F.
1874	Nov.	Afghanistan, Cabul II Ti.
1874	Nov. 13	Mexico, Jalapa in Vera Cruz, Oaxaca, Tlaxcala, Puebla,
	11011 10	Mexico, Guanajuato II O.B.
1874	Nov. 19	Mexico, Puebla, Oaxaca, Colima I O.B. See Nov. 13.
1874	Dec. 1	Iceland, Northeastland, Myvatnsveit, some houses dam-
		aged I Th.
1874	Dec. 6	Italy, Sora, Arpino, Arce and neighbourhood in (Caserta) I B.
1875	Jan. 1	Chile, Coquimbo, La Serana I Ti.
1875	Jan. 8	Italy, Acircale and neighbourhood in (Catania) I B.
1875	Jan. 14	Germany, Ronsdorf I F.
1875	Feb. 11-27	Mexico, Guadalajara, east to Leon, north to Chalchinuites
		south to Zacoalco, San Cristobal, Guanajuato III
1875	Mar. 9	F., O.B. 8th, 19h. 30m., G.M.T. Philippines (Abra and Mountain
1010	mai.	Provinces) II S.M.
1875	Mar. 11	Mexico, San Cristobal and Colima I O.B.
1875	Mar. 18	Italy, Rimini, Cesena, Cervia, throughout Central Italy
		and a large part of Northern Italy I B.
1875	Mar. 28	New Caledonia, Loyalty Islands, Lifu: sea wayes HI F
1875	April 9	Peru, Truxillo II F. Not given by Mon.
1875	April 26	India, Darjeeling I Ti.
1875	April 26	Peru, Truxillo II F. Not given by Mon. India, Darjeeling I Ti. Austria (Silesia), Kattowitz, Königshütte I F.
1875	April 29	Greece, Kiparissa II F.
1875	May 3-5	Asia Minor, Ischikli, 1,000 houses destroyed, Yoril, Yaka
40==	36 10	III F.
1875	May 12	Asia Minor, Uschak III F.
1875	May 16-18	On the later date at 11 a.m. Colombia and Venezuela,
		Seberatina, Cucuta, San Cayetano, Santiago, P. de
		Arboletes, San Cristobal, S. Antonio, Capacho, Guasimo, Verena, Tarida, Rosario, Salazar, 16,000 lives lost III Ti., O.D.
		lives lost III Ti O D
1875	May 19	3h. 30m., G.M.T. Philippines, S.E. Luzon (Carmaines),
1010	nay 10	Nueva Caceres, Iriga, Buhi, etc. II S.M.
1875	June 9	Spain, Barcelona I Ti.
1875	June 18	U.S.A. (Ohio, Indiana, Illinois) I Ti.
1875	July 25	Russia, Crimea, Sebastopol I M. & O. & Ti.
1875	Aug. 7	Caucasia, Shemaka and its district III M. & O.
1875	Aug. 17	Austria (Galicia), Lubin, Lemberg, Doehobyczow, I F.
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A.D.
1875
           Sept. 3 and
                                 15h. 37m. local. India, Assam, Shillong, Gauhati, Tezpore,
                                 Shibsagar, Nowgong II O.D.

New Zealand, Gisborne, Wellington, Blenheim I Ti.

11h. 32m., p.m. Java, Menendjaja, Bandeong, and elsewhere in the Preanger and in Cheribon I O.N.T.
         following days
1875
             Sept. 14
Oct. 24
1875
                                 Germany, Saxony, Reichenbach, Auerbach, Plauen I F.
Peru, Abancay I H.J. F. gives Jan. 5, 1876, and III
Italy, S. Giovanni Rotondo and S. Marco in Lamis in
(Foggia) and over northern parts of Central Italy
1875
              Nov. 23
              Dec.
1875
              Dec.
1875
                                          ÌΙ
                                 West Indies, Porto Rico, Arecibo II
India, Lahore, Peshawar II F. & Ti.
1875
             Dec.
                       8
              Dec. 12
1875
              Dec. 13
                                 Java, North Coast, Koeningan, Cheribon, 1,053 habitations
1875
                                          destroyed III F.
1875
              Dec. 20
                                 West Indies, Porto Rico, Arecibo
                                                                                     II F. & Ti. See Dec. 8
              Jan. 4-5
                                 Peru, Abancay, Dept. Apurimac
Mon. or H.J.
                                                                                    III F.
1876
                                                                                                      Not given by
1876
              Feb. 11
                                 Chile, Illapel, Salamanca and Chalinga
                                                                                               H
                                                                                                      Mon.
             Feb. 12
April 5
                                Argentina, Buenos Ayres I Ti.

10h. 43m., p.m. Java, Bandjarnegara in (Banjoemas),
Bagelen, Kadoe, Tegal in (Pekalongan) I O.N.T.

Italy. Monte Baldo in (Verona) I B.
1876
1876
              April 28
1876
              April 29
1876
                                Italy, Spoleto in (Perugia) I B.
3h. 57m., a.m., Moluccas, Amboina I
Italy, Corleone (Palermo) I B.
Greece, Corinth, Athens, Euboca, Volo
             May 20
1876
1876
            May 28
May-June
                                                                                               O.N.T.
1876
1876
            June 18-26
                                                                                               II F.
                                                                                                             Ti. gives
                                         June 29.
1876
              July 9
                                 Greece, Corinth II F.
              July 17
                                 Austria, Vienna, from Passan to Pressburg, centre near
Scheibbs I Ti. & Ra.
1876
                                 New Zealand, Wanganui, Blenheim, Napier
1876
              July 19
1876
                                China (Yunnan), Yungping, Yungchang Fu
Greece, Patras II Ti.
                                                                                                       III
                                                                                                             Ho.
              Aug.
              Aug. 12
1876
                                Italy (Calabria), Reggio I B. Germany, Dortmund I F.
1876
             Sept. 13
             Oct. 17
Oct. 26
Nov. 10
1876
                                 Italy, Palestrina and neighbourhood in (Latium)
1876
                                 Chile and Argentina, Mendoza, Illapel, Salamanca and
1876
                                         Chalinga I Mon.
                                Hungary, Mohács I F.
10h. 52m., a.m. Java, Ledok in Bagelen, Tegal (Prean-
1876
              Dec. 6
              Feb. 21
1877
                                ger, Banjoemas and Pekalongan)
Sweden (Nerke), Hallsberg I F.
1877
             Mar.
                        5
                               Austria, Karlstadt I F.
Chile, Peru, Arequipa, Cobija, Tocopilla, Iquique, Tara-
paca, Arica, origin 71°W. 21°5S.; sea waves III
F. & Mon.
              April
1877
                        4
             May
1877
                                Peru, Callao, Lima I. F.
Bolivia, La Paz I Mon.
3h. 6m., G.M.T. Philippines, Central Luzon, N. & N.E.
(Pangasinan) I S.M.
1877
             May 14
1877
             May 17
June 2
1877
                                (Pangasnan) 1 S.M.
Germany, between Cologne and Aix La Chapelle, Herzogenrath I F. & Ti.
23rd, 23h., G.M.T. Philippines (Batangas, Cavite), Lake
Bombon II S.M.
             June 24
1877
1877
              June 24
                                Bombon II S.M.
4h. 7m., G.M.T. Philippines, S.E. Luzon, and the Vizayas,
1877
             July
                        5
                                         Camarines (Albay and Masbate) II S.M.
                                         4m., G.M.T. Philippines, north part of Leyte Island, Carigara II S.M.
1877
              July 23
                                 8h. 24m., G.M.T.
                                Chile, Coquimbo, Chinbo and Tamaya II Mon.
Caucasia, Georgia, Oni and Utseri, 43°33N. 42°40E., on
River Rion I M. & O.
1877
              July 26
1877
              Aug.
                       8
                                Italy, Veroli (Latium) I B.
Chile, Caldera, Coquimbo, Vallenar II
Switzerland, Geneva I F. & Ti.
U.S.A. (Oregon), Portland I F.R.
Tunkov, Libral of Manageria
              Aug. 24
1877
              Aug. 29
1877
                                                                                                Mon.
1877
              Oct.
                       8
                      12
1877
              Oct.
                                Turkey, Island of Marmora
Peru, Chachapoyas II F.
Italy, Viterbo (Latium) I
              Oct. 13
1877
              Nov. 26
1877
1877
              Dec. 23
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A.D.		
1877	Dec. 28	Austria, Styria, Neumark, Judenberg I F.
1878	Jan. 10	Austria, Styria, Neumark, Judenberg I F. New Hebrides, Tanna Island; sea waves II F.
1878	Dec. 28 Jan. 10 Jan. 20	Sandwich Islands, Manu; sea waves II F.
1878	Jaa. 23	Peru and Chile, earth motion extended from Iquique to
		Arequipa, La Noria, Pica (Tarapaca, Mantilla), Piasagua, Arica, Callao: sea waves inundated coastal
		Piasagua, Arica, Callao: sea waves inundated coastal
		towns III F., Mon. Ti. gives I
1878	Feb. 11	New Hebrides, Tanna, with sea waves I F.
1878	Feb. 12 or 13	Italy, Cascia (Perugia) I B.
1878	Feb. 28	Chile, Tarapaca I F.
1878	Mar. 2	India, Punjab I O.D.
1878	Mar. 3	Hungary, Mako I F.
1878	Mar. 12	Italy (Bologna, Romagna) I B. Mexico, San Cristobal and Guadalajara I O.B.
1878	Mar. 22 Mar. 28	Mexico, San Cristobal and Guadalajara I O.B. Russian Turkestan, Bakhti Fort in Sergiopol district I
1878	Mar. 40	M. & O.
1878	Mar 31	Canagaia Garachayadek convict sattlement II M & O
1878	Mar. 31 April 12	Venezuela (Bolivar), Gua, Caracas III F.
1878	April 19	Venezuela (Bolivar), Gua, Caracas III F. Asia Minor, Ismid, Esme, Sapardjia III F. Caucasia, Village Ullu-gatam in S. Daghestan II M.
1878	May 4	Caucasia, Village Ullu-gatam in S. Daghestan II M.
		& Ó.
1878	May 13	Venezuela, Caracas, Gua I Ti. See April 12.
1878	May 22-31	Mexico, Loreto in Lower California II O.B.
1878	June or July	New Hebrides, Tanna II Ti.
1878	June 7	Italy, Cartignano (Cuneo) and neighbourhood I B.
1878	July 16	Caucasia, Fort Kishan-aukh, Terek prov. and neighbour- hood I M. & O.
1878	Aug. 13	4h. 14m., G.M.T. Philippines, epicentre S.W. of Luzon,
1010	rug. 10	near the west of (Cavite and Zambales), it was felt
		from Mindoro to (Union and Isabela) I S.M.
1878	Aug. 21	Austria, Croatia, Nassenfuss I F.
1878	Aug. 26	Austria, Croatia, Nassenfuss I F. N.W. Germany, Cologne, Rhine provinces from Cleve
		and Emmerich to Kyllburg and Ottweiler I F.
1878	Aug. 27	Siberia, River Irtish, Omsk I Ti.
1878	Aug. 27 Aug. 29	U.S.A., Alaska, Makuslin in Unalaska Island II F.R.
1878	Sept. 9 Sept. 10	7h. 45m., p.m. Colombia, Popayan II O.D. Italy, Fivizzano and neighbourhood in (Massa) I B.
$\frac{1878}{1878}$	Sept. 10	Italy, Bettona, Giano, Foligno, Spoleto and other towns
1010	Sept. 15	in (Umbria) II B.
1878	Sept. 17	16th, 16h. 50m., G.M.T. Philippines, S.E. Mindanao,
		Davao District, near Mt. Apo II S.M.
1878	Oct. 2	Salvador, San Salvador, Usulatan, Jucuapu ruined, S.
		Maria, Tecapa, Chenameca, many villages ruined and lives lost III Mon., F. & Ti.
1878	Oct. 4	Italy, Mineo and neighbourhood in (Catania) I B.
1878	Oct. 4	U.S.A., Hudson River, Marlborough, Peekskill I Ti.
1879	Jan. 8	
1879	Feb. 2	Chile, Argentina, Terretorio, Magallanes and Tierra de
		Chile, Argentina, Terretorio, Magallanes and Tierra de Fuego I Mon.
1879	Feb. 23	Italy (Cascia), Norcia and Terravall in (Perugia) 1 B.
	Mar. 13-Apr. 2	Persia, Tabriz to Mianeh, Zendjan, Maran, Tark III F.
1879	Mar. 28	Midday, Java, Tjianjoer and other places in the (Prean-
		ger, Batavia, Bantam, Cheribon and Tegal) II O.N.T.
1070	Annil 97	Italy, Casio, Modegliana and neighbourhood in (Romagna)
1879	April 27	I B.
1879	May 2	Russia, Bessarabia, Schaba in Soroki II F.
1879	May 17	Mexico, Vera Cruz to Mexico, Orizaba, Cordoba, Puebla,
	•	Oaxaca I O.B.
1879	June 5	11h. 25m., a.m. Java, Rangkas Bitoeng and other places
10-0		in (Bantam, Batavia and Cheribon) I O.N.T. Canada, St. John, Montreal I Ti. Probably small.
1879	June 11	China (Chanai) Chiahan in Fanghaiana Fu Hanahana Fu
1879	June 29-July 1	China (Shensi), Chishan in Fenghsiang Fu, Hanchung Fu, Hsian Fu; (Chihli), Taming Fu III Ho.
1879	July 1	June 30th, 18h, 38m., G.M.T. Philippines, N.E. Mindanao
1019	July 1	(Surigao) III S.M. There followed other very
		June 30th, 18h. 38m., G.M.T. Philippines, N.E. Mindanao (Surigao) III S.M. There followed other very strong earthquakes on July 5, 24 and Aug. 8.
1879	July-Aug.	
1879	Aug. 29	28th, 22h., G.M.T. Philippines, Mindanao, Cotobato 1
		S.M.

A.D.		
1879	Sept. 28	Philippines, Mindanao, Davao I S.M.
1879	Oct. 9	Russia, Varenska, Gostagaievska, 45°2N. 37°27E., Troitz-
		kaya 45°8N, 38°6E., and Kurgan 44°56N, 40°, 15E
		stations in (Trans-Kuban) Prov. I M. & O.
1879	Oct. 10	stations in (Trans-Kuban) Prov. I M. & O. Hungary and Servia, Drenkova, Vel. Gradiste, Zelenik, Kudrez and Golubac II F. & O.D.
		Kudrez and Golubac II F. & O.D.
1879	Oct. 14	1h., G.M.T. Philippines (Ilocos Norte), Baccarra II
		S.M.
1879	Oct. 14	Austria, Old and New Moravia, Golubacz near Weiss-
		kirchen II F.
1879	Oct. 28	S. Hungary and felt in Transylvania, Servia, Roumania,
		and Bessarabia III M. & O.
1879	Oct. 31	Hungary, Gross-Szent-Miklós I F.
1879	Nov. 21	Hungary, Temesvar I F.
1879	Dec. 19	Philippines, N. Luzon (Ilocos Norte), Lavagan and other towns II S.M.
		towns II S.M.
1879	Dec. 29	Switzerland, Morges, Montreux, Aubonne, Ouchy I Ti.
1879	Dec. 31	Salvador, San Salvador, Illopango, San Marcos, Santa
1000	-	Somas, Sayapango III F. & Mon.
1880	Jan. 7	Switzerland, Grisons I Ti.
1880	Jan. 7	Mexico, Matehuala in San Luis Potosi and Doctor Arroyo
1000	T 04	in Nuevo Leon I O.B.
1880	Jan. 24	Germany, Pfalz, part of Baden, Württemberg I F.
1880	Jan. 25	West Indies, Cuba, San Cristoval, Cienfuegos, Havana III
1000	TA-L 10	Ti.
$\begin{array}{c} 1880 \\ 1880 \end{array}$	Feb. 12 Feb. 21	Austria, Karlstadt I F.
1880	Feb. 21	Hungary, Severin near Karlstadt I F.
1880	Feb. 22	Japan, Yokohama I Mi.
1880	Mar. 17 Mar. 23	Austria, Karlstadt I F.
1880	Mar. 28	Turkestan, Samarkand I F.
1000	mar. 20	27th, 21h. 4m., G.M.T. Philippines, E. Panay, N.W. Negros I S.M.
1880	Mar. 28	Asia Minor, near Sinope, Haleddi II F. & Ti.
1880	April 16	Mexico, Acapulco, San Marcos, origin coast of San Marcos
1000	mpin 10	I Bo.
1880	June 15	Hungary, Nagy-Berezna, Peresceny and Uzsok I F.
1880	July 4	Throughout Switzerland, Brieg, Zug I F. Same as
	• -	under.
1880	July 4	Italy, Varzo and Valvedro at the foot of the Simplon and
		as far as Milan, centre in the Valais I B.
1880	July 15	14th, 16h. 53m., G.M.T. Philippines, east range of Luzon (Tayabas, Laguna), east of Lake Bay II S.M.
		(Tayabas, Laguna), east of Lake Bay II S.M.
1880	July 18	4h. 40m., G.M.T. Philippines, Central and South Luzon
		(Tayabas, Cavite, Laguna, Rizal, Bulacan, Bataan, Pampanga, Tarlac, Nueva Ecija, Pangasinan), espe-
		Pampanga, Tarlac, Nueva Ecija, Pangasinan), espe-
		cially on the banks of River Pasig, the Great and
1000	T.1 00	Little Pampanga and the Agno III S.M.
1880	July 20	7h. 40m., G.M.T. Philippines (Bulacan, Bataan, Pam-
		panga, Tarlac), Manila, most violent in the towns
		surrounding Lake Bay, especially south and west
1880	July 22	of the Lake III S.M.
1880	July 29	Asia Minor, Smyrna II F.
1000	oury 20	Asia Minor, Smyrna, district Menemen, Cassaba, Burnabad, felt in Mitylene, Chios and Samos III F.
		& Ti.
1880	July 24-28	Italy Ischia and Vantotana I R & C V
1880	Aug. 15	Italy, Ischia and Ventotene I B. & C.V. Chile, Aconcagua, <i>Illapel</i> , Valparaiso, <i>Quillota</i> and to
		Coquimbo I Mon. & Ti. F. gives 14th and II
1880	Aug. 19	Argentina, Mendoza I Mon.
1880	Sept. 1	4h. 35m., n.m. Java, Sumatra, Rantam, Tangerang in
	•	(Batavia, Preanger), Lampong I O.N.T.
1880	Sept. 2	(Batavia, Preanger), Lampong I O.N.T. Greece, Kalavrita, Strezoba, Dára I F.
1880	Sept. 23	14h. 30m., G.M.T. Philippines, W. Luzon (Zambales) coast I S.M.
		coast I S.M.
1880	Sept. 29	U.S.A., Alaska, Ukmok Island I F.
1880	Oct. 3	Hungary, Klausenburg, Maros I F.
1880	0.4 00	Caucasia, Shemaka I M. & O.
1880	Oct. 26	U.S.A., Alaska along the coast, Sitka II F.

A.D.		
1880	Nov. 9	Hungary, Agram and Laibach, Pettau, Gurkfeld, earth-
		quake felt from Krems in the north, Pest in the east,
		Serajewo and Pola in the south, Gorz and Klagenfurt in the west I F.
1880	Nov. 14	Austria, Innsbruck, Hall I F
1880	Dec. 2	Russian Turkestan, Shemaka, Verny extending to Kurumdof 39°35N. 73°40E. and Karakul I M. & O. F.
		dof 39°35N. 73°40E. and Karakul I M. & O. F.
	_	gives 11
1880	Dec. 11	Hungary, Agram I F.
1880	Dec. 18	Caucasia, Shemaka II F. & Ti.
1880	Dec. 25	Roumania and Russia, Tekutsh, Waslui near Jassy, Bessarabia, Odessa I F.
1881	Jan. 5	Bessarabia, Odessa I F. 6h. 12m., a.m. Celebes and Timor, Koepang I O.N.T.
1881	Jan. 27	Switzerland, Berne I F.
1881	Jan. 28	Russia, Narva, Korff, Logena, Repnik, Iwangorod, or
		Nowgorod I F.
1881	JanNov.	Italy, Bologna, Scanello, Quaderna and elsewhere in
1001	Ton 91	(Romagna) I B.
$\frac{1881}{1881}$	Jan. 31 Feb. 1	Russia (Transbaikalia), Petrovsk I' M. & O.
1001	Beginning of	Hungary, Carniola, Laibach to Agram I F.
1881	Feb.	France, Breauté, Goderville near Rouen I F.
1881	Feb. 12	Italy, Coda de Volpe, Macchia and neighbourhood near
		(Etna) I B.
1881	Middle of Feb.	Azores, San Miguel III F.
1881	Feb. 25	Hungary, Agram I F.
$\frac{1881}{1881}$	Feb. 27 Mar. 4	Hungary, St. Ivanzelina near Agram, Glavnica I F.
1881	April 3	Asia Minor Chica Island Kastro contro at Navita and
1001	приг	Italy, Ischia, Casamicciola, Fango, Lacco-Ameno II B. Asia Minor, Chios Island, Kastro, centre at Nevita and East Coast, 4,181 lives lost III F. Asia Minor Chios, II F.
1881	April 9-10	Asia Minor, Chios II F.
1881	April 10	U.S.A., California, Santa Clara Valley, Modesto, centre in
		San Joaquin Co. I F.R.
1881	April 11	Bohemia, Kladno I F.
$\frac{1881}{1881}$	April 15-30	Nicaragua, Managua, San Juan del Sur I F. & Mon.
1881	May 20 May 30	Asia Minor, Van Village of Tegut and environg III M
1001	May 50	Asia Minor, Chios II F. Continuation of April 3. Asia Minor, Van, Village of Tegut and environs III M. & O. F. gives June 7th.
1881	June 9	Switzerland, Lake Geneva, Martigny, Monthey, Rev.
		Aigle, Montreux, Lausanne, Morges, Geneva, Berne
	*	1 F.
1881	June 10	Asia Minor, Chios I F.
1881	June 10 July 11	Formosa, Unrin I H.
1001	July 11	4h. 35m., G.M.T. Philippines, S. Panay and N.W. Negros Island II S.M.
1881	July 19	Austria, Tyrol, Arzo I F.
1881	July 22	Switzerland, Geneva, St. Julien, Macon, Neuchâtel, Berne,
		Basel I F.
1881	July 22	France and Italy, southern part of Savoy and adjacent
1881	Tules 97	parts of Italy 1 B. 8h. 30m., G.M.T. Philippines (Nueva Vizcaya), Bayom-
1001	July 27	bong II S.M.
1881	Aug. 26	Asia Minor, Chios, Tschesme III Ti. & F.
1881	Aug. 26	England, Nottinghamshire I M. & W.
1881	Aug. 28	Persia (Azerbaijan), Choi, Tabriz II F.
1881	Sept. 1	4h. 20m., G.M.T. Philippines (Nueva Vizcaya), Bayom-
1001	C4 10	bong III S.M.
1881	Sept. 10	Italy, Orsogna, Lanciano and other places in (Chieti) II B.
1881	Sept. 18	17th, 20h. 55m., & 18th, 14h. 40m., G.M.T., two earth-
		quakes. Philippines (Nueva Vizcaya), Bayombong
		II S.M.
1881	Sept. 20 to	6h. 25m., G.M.T. Philippines (Nueva Vizcava), Bayom-
1001	Oct. 15 Sept. 28	bong II S.M.
$\frac{1881}{1881}$	Sept. 28	Armenia, Tschangri? Tschanderli in Asia Minor II F.
1881	Sept. 30 Oct. 25	Sandwich Islands, Honolulu, Maui Island I F. & Ti. Japan (Nemuro), Kunashiri, Kuril Islands II O.
1881	Nov. 5	Austria (Carinthia), Klagenfurt, Villach, Tamsweg, St.
		Michael I F.

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A.D.
            Nov. 18
1881
                            Switzerland and Austria, St. Gallen, Ragaz (Appenzell) I F.
            Nov. 24
                            Samoa, Tonga H F.
Hungary, Agram I F.
1881
            Nov. 30
1881
                            New Zealand, Christchurch I O.D.
Kamtcheon? Kamechik in Bulgaria II
1881
            Dec.
                    5
            Dec. 20
1881
                            Asia Minor, Kiangri II Ti.

Italy, Latera, Rocca Respampani and elsewhere in

(Viterbo) I B.
1881
            Dec. 29
                            Italy, Later...
(Viterbo)
1881-1882
            Dec. 31
                            Indian Peninsula and Bengal, Port Blair, Andema and
1881
                                   Nicobar Islands
                                                         I O.D.
         Jan. 23
Jan. 24
Jan. or Feb.
1882
                            China, Prov. of (Kancheou) III
                                                                        F.
1882
                            Switzerland (Tyrol), Tannheim, Schattwald I F.
                           Ceylon, Trincomali: sea waves II F.
Switzerland, Tyrol, Velllin, Bondo, Val Bregaglia and
Brescia I F.
1882
1882
            Feb. 27
                           Italy, Castione, Rovetta, etc. in (Bergamo) I
8h. 57m., G.M.T. Guatemala, Guatemala,
Salama I F & O.D.
1882
            Feb. 27
                                                                                          Antiqua.
1882
            Mar.
                           Costa Rica, San José, Gracia, Cartago II Mon.
Argentina, Dept. of Paulin, Catamarca II Mon.
1882
                    3
                                                                                   Mon. & F.
            Mar.
1882
            Mar.
                    6
                           4h. 57m., p.m. Java, Pekalongan (Bantam and Banjoemas) I O.N.T.
Asia Minor, Chios I Ti.
            Mar. 10
1882
1882
           Mar. 21
Mar. 26
                            Italy, Cascia in Perugia and all around I B.
1882
            April 10
                            11h. 30m., G.M.T. Philippines (Cotabato), Mindanao
1882
                                   S.M.
1882
            May
                    3
                            Azores, Faval II Ti.
1882
            May 17
                            Asia Minor, Island of Scarpanto I F.
1882
                            Italy, Isernia, Monteroduni, Longano in (Campobasso)
            June
                                   в.
1882
            June
                    9
                           6h., ca.
                                       Guatemala, Guatemala I O.D.
                           Austria (Carniola), Sessana, Laibach, Loitsch
1882
            July 17
                           Musico, Mexico, Puebla, Oaxaca, Vera Cruz, Morelos, Jalisco, Tehuantepec III O.B.
1882
            July 19
1882
            July 19
                           Central America, Panama, Aspinwall, Caracas, Nicaragua,
Rivas, Greytown, Colombia, Buenaventura and
Cartagena, Ecuador, Guayaquil to Maracaibo III
1882
           Sept. 7
                                   F. & F.R.
                           8h. 57m., G.M.T. Philippines, S.E. Luzon (Camarines),
1882
            Oct. 10
                           Nueva Caceres II S.M.
India (Assam), Silchar II O.D.
           Oct.
1882
                   13
                            Iceland, North coast of Thistillfjördr
1882
            Oct.
                   29
                                                                            Ι
                           China (Chihli), Paoting, Tinghsing in Paoting Fu, Hochien Fu, Tiensin Fu II Ho.
1882
           Dec.
                          Philippines, North part of Cebu Island, South Masbate,
Bantayan II S.M.
1882
           Dec.
                           Bantayan II Bo.
Mexico, San Marcos I Bo.
Iceland, Akureyri I Th.
101 28m. G.M.T. Philippines (Nueva Vizcaya),
1882
            Dec.
                    7
            Dec. 21
1882
                           9th, 19h. 28m., G.M.T. Philippines (Nueva Vizcaya),
Benguet in (Abra) II S.M.
Italy, neighbourhood of Etna, connected with an eruption
I B.
1883
           Feb. 10
1883
           Mar.
                           Colombia and Panama, Derien (Antioquia), Santa Rosa,
1883
           Mar.
                           Yarumal I F. & Mon.
India, Peshawar II F. & Ti.
1883
            April
                           Persia, Tabriz and most of (Azerbaijan) III & F.
Ecuador, Latacunga II F.R.
                                                                                           M. & O.
1883
            May
1883
           May 19
1883
            June
                            Austria (Bukowina)
                                                      II Ti.
1883
            July 28
                            Italy, Casamicciola in (Ischia)
                                                                   III
            July
                            Salvador, San Salvador I Mon.
1883
        Beginning of
                           Mexico, Pachuca II F. Not given by Bo.
Greece, Thermia Island, Kystnos II F.
Mexico, Patchusa II Ti.
East Indies, Straits of Sunda with eruption of Krakatoa
1883
           Aug.
1883
           Aug.
            Aug. 20
1883
1883
            Aug. 27
                                   and sea waves III F.
                           Sumatra, Tanahdatar in the Padangsche Bovenland
O.N.T.
1883
            Sept. 22
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A.D		D 4 1 7 37 6 77 7				
188		Peru, Arequipa I Mon. & H.J.				
188		U.S.A., Alaska, eruption of Augustin and sea waves I F.				
188		Algeria, Philippeville, Jemmappes, Stora I F.				
188		Austria, Olmutz, Stephanau I F.				
188	3 Oct. 15	Austria, Olmütz, Stephanau I F. Greece and Asia Minor, Syra, Chios, Smyrna, Avalik and villages between Vurla and Chesmeh, 3,600 houses				
188	3 Nov. 1	destroyed III F. Asia Minor, Island of Klazomena near Smyrna, Karatoi,				
188	3 Nov. 3	Purgi III F. Asiv Minor, Karakoyunli, 30 miles from Erivan II M. & O.				
188	3 Nov. 14	Russian Turkestan, Tashkent and Osh in Fergana I M. & O.				
188	3 Nov. 18-24	Russia, Sultanabad, 20 miles from Osh and Osh II M. & O.				
188	3 Nov. 25	9h. 16m., p.m. Moluccas, Saparoea and other places in Amboina II O.N.T.				
188	3 Dec. 2 or Jan 2 1884					
188		Portugal I Ti.				
188		Bosnia, Zepce I Ti,				
188		9th, 23h. 22m., G.M.T. Philippines, S.E. Luzon (Camarines), Nueva Caceres II S.M.				
188	4 Jan. 23	Asia Minor (Kostambul or Kastamuni), Ka'adjik I F.				
188		China (Yunnan), Tali Fu II M. & O.				
188		China (Yunnan), Tali Fu II M. & O. Formosa, Unrin I H.				
188		Asia Minor, Bitlis, Biroari II F.				
	Beginning of					
188		Persian Gulf, Muskat, Nedjd III F.				
188		Salvador, San Salvador I Mon.				
188		Hungary (Salavonia), Diakovar I F.				
188		Asia Minor, Sinope I Ti.				
$\frac{188}{188}$		England, Colchester I R. 8h. 17m., p.m. Celebes, Gorontalo in Menado I O.N.T.				
188		8h. 17m., p.m. Celebes, Gorontalo in Menado 1 O.N.T. Asia Minor, Panderma, Crevassa II F.				
188	4 May 19	Persian Gulf, Kishim Island III F.				
188		Formosa, Unrin II H.				
188	4 June 5	Dhilimmin as M Mindanaa Miasmia I CM				
188		5h. 18m., p.m. Sumatra, Manna and Lais in (Benkoelen) II O.N.T.				
188	4 July 23	Egypt, Massowah in the Red Sea 1 F. Ti. gives July 20 III				
188		U.S.A., Virginia to Vermont I Ti. Austria, Neustadt, Vienna, Voslan I Ti.				
188		Austria, Neustadt, Vienna, Voslan I Ti.				
188		italy, rontogno (brescia) i b.				
188	•	U.S.A. and Čanada, Windsor (Ontario), Grasslake (Michigan), Toledo (Ohio, Kentucky) I F.				
188		Japan (Musashi) I N.				
188	64 Oct. 29	28th, 20h. 10m., G.M.T. Philippines, S. & S.E. Luzon (Laguna, Tayabas, Camarines, Albay, Sorsogon) and Masbate Island I S.M.				
188	4 Nov. 2	Iceland, Tingeyjarsyslu, Husavik, some houses slightly damaged I Th.				
188	4 Nov. 5	Panama, Aquadalec, Pacoria II Mon. & F.				
188	84 Nov. 6	Colombia, Cali II F.				
188		Bolivia I Mon.				
188	Nov. 27	France and Italy, most destructive in Briançon, France; Cesana, Melegnate and other places in (Pied-				
100	4 D. 10	mont) I B.				
188		Caucasia, Shusha I M. & O.				
188		23rd, 21h., G.M.T. Philippines (Samar, Leyte and N.E. Mindanao) I S.M.				
188		Spain (Malaga and Granada), Alhama, Malaga, Seville; 40-50 towns damaged III F.				
188 188		Spain, Granada I F. Continuation of Dec. 25. Spain, Valez, Torrox, Albuneulas II F. Continuation of Dec. 25. Cartinuation of				
100	T	of Dec. 25.				
188	55 Jan. 1	Spain, Velez, Nerja, Torrox II F. Continuation of Dec. 25, 1884.				

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A.D.
                            Austria (S. Styria) I Ti.
Spain (Andalusia), Nerja, Trijliano
Spain, Malaga and Granada I F.
1885
            Jan.
                     4
1885
            Jan.
                     5
                                                                             II F.
1885
            Jan.
                   12
                            Siberia, Villages of Kabansk and Bargusinsk, east of
Lake Baikal I M. & O.
                   12
1885
            Jan.
                             China (Shensi), Chishan in Fengsiang Fu
1885
            Jan. 14
                             India, Cashmere, Srinagar I N.
Italy, Porto Maurizio (Liguria) I
1885
            Jan. 15
            Jan.
1885
                   24
                                                                             В.
            Jan.
                   25
                             Iceland, Northland, Kelduhverfi, many houses damaged III Th.
1885
            Jan. 27
                             Spain, Tejede, boundaries of (Malaga and Granada) II
1885
            Jan. \overline{29}
                            Spain (Andalusia), Montril, Alhama I F.
Algeria, Msila II Ti.
1885
                            Algeria, Msila II Ti.
Spain, Malaga, Meluna I F.
3h. 8m., a.m. Java, Wonogiri and elsewhere in Socrakarta
            Jan. 31
1885
1885
            Feb.
                    8
            Feb. 12
1885
                                    and over most of Java I
                                                                          O.N.T.
1885
            Feb. 13
                             Spain, Torre del Campo II
                                                                   F.
                            Spain (Andalusia), Loja and Alhuma II F.
7h. 30m., G.M.T. Philippines, E. Mindanao, along the
            Feb. 21
1885
            Feb. 22
1885
                                    Pacific Coast (Surigao), Bislig, Caraga II S.M.
            Mar. 6
1885
                             Germany, Triberg, Schonwald I F.
            Mar. 27
                             Greece (Peloponnes), Argos, Khelmos, Missolunghi, Megalopolis, Corinth, Patras III F.
1885
         April 5 & 6
April 9
                             Spain (Malaga), Velez, Antequera II
France, Dôme II Ti.
1885
1885
                             Switzerland from Genoa to Valley de Joux, Neuchâtel,
Interlaken, Simmenthal I F.
1885
            April 13
                             Spain (Malaga), Andalusia, Villanuova I
1885
            April 19
1885
                             5h. 53m., a.m.
                                                     Moluccas, Kajelie and other places in II O.N.T.
            April 30
                                    Amboina
                                                  III
                             Austria (Styria), Valley of Mürz, Mur, Murzsteg, Otten-
sheim, Leoben, Mittersdorf, Wartberg I F.
1885
            May
                             11h. 29m., p.m. Java, Java's 1st Point in (Batam, Batavia and Preanger) I O.N.T.

Central Asia, Village of Sikukh? Kusitch, N.W. of Derbent II M. & O.
1885
            May
                     3
1885 Middle of May
1885
            May 30
                             India, Cashmere, Sopor, Musaserabad, 2,000 lives lost,
Srinagar III O.D.
         Beginning of
1885
                             Caucasia, Sikutch? Kusitch, N.W. of Derbent
              June
1885
            June
                             India, Cashmere, Dubgaon, Jamalapor, Ovan
                                                                                            III
                                                                                                    F.
1885 Middle of June Russia, Village of Shishkina, 33 miles from Orenburg
M. & O.
1885
            June 17
                                      Morro Reatino, Rivodutri, Riete and elsewhere in
                             Italy,
                                    (Sabina) I B.
1885
            June 20
                             West Switzerland (Vaud), Payerne, Neuchâtel, Yverdon
                                       F.
                             Italy, Vernante (Cuneo) I B.
India, East and Middle Bengal, Bogra, Dacca, Azimganj,
Calcutta, Aheripare l'Alipore II F.
14h. 45m., G.M.T. Philippines, N.E. Mindanao, Dapitan
1885
            July
            July 14
1885
1885
            July 23
                                    district III
                                                        S.M.
 1885
            July 24
                             India, Rungapur, Nattore and Bengal II F. Russian Turkestan, Belovodsk, Karabalti, Tashkent, Pisch-
1885
                             Mexico, Tehuantepee, Oaxaca, Morelos I O.N.T. Austria (Styria), Valley of Mürz I F. Midday. Java, Edam Island in (Batavia) I O.N.T. Italy, Benevento and neighbourhood I B. 29th, 2h., G.M.T. Philippines, N. Mindanao, S.E. Leyte I S.M.
            Aug.
 1885
            Aug. 3
Aug. 26
 1885
 1885
            Sept. 13
            Sept. 17
Sept. 30
 1885
 1885
 1885
           Sept.-Oct.
                              Italy, Nicolosi near Etna I B.
                             Russian Turkestan, Tokmak district, 42°50N. 75°25E.,
Semirechie I M. & O.
Japan, Northern Japan I N.
 1885
            Oct. 9-25
 1885
             Oct. 30
                             6h. 3m., a.m. Java, Tjipanes (Preanger, Bantam, Bata-
 1885
             Nov. 5
                             via), Krawang and (Semarang) I O.N.T. 6h. 55m., a.m. West Indies, Trinidad I O.D.
 1885
             Nov. 17
 1885
             Nov. 19
                              U.S.A., California, San Francisco, 1 to 8 p.m., with sea
                                     waves I N.
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A.D.
             Nov. 19
                               13h. 31m., G.M.T. Philippines, N. Luzon (Nueva Vizcaya,
1885
                                       Isabela), Bayombong, Ilagan
                                                                                   \mathbf{II}
1885
             Nov. 22
                               Guatemala, Amatitlan II
                                                                       Mon.
                               Spain (Malaga), Velez, Malaga (Andalusia) and opposite
1885
             Nov.
                                       African Coast I N.
                               Asia Minor, Karahsisar, Kemer I N.
Algeria, M'Sila, Mascara, Blidah, Bou Saada, Médéa,
Bourunda and Setif III F.
1885
             Dec. 2
           Dec. 3-13
1885
             Dec. 13
Dec. 18
Dec. 26
                               Asia Minor, Aidin, Denizlu I
1885
                                                                              N.
                               Guatemala, Guatemala, Amatitlan
1885
                                                                                    III F. & Ti.
                               Italy, Molise I B.
1885
                               Russia, Tchembar, Penza Govt. I
Greece, Roumelia I N.
1886
             Jan.
                                                                                    M. & O.
1886
             Jan. 8-9
            Jan. 18
Jan. 23
Jan. 29
Jan. 29
                               Guatemala, Amatitlan, 131 shocks III
Hungary (Croatia), Jaska and Samobor
Spain, Velez, Malaga I Ti. & N.
Algeria, Setif I N.
1886
1886
1886
                               Algeria, Setif
1886
            Feb.-July
1886
                               Italy (Calabria)
                                                       I B.
                                                        I
1886
            Mar. 14
                               Spain (Granada)
            April 10
                               0h. 0m., G.M.T.
                                                          Philippines, S.E. Panay, N.W. Negros
1886
                                       Island I S.M.
                               1h. 45m., a.m., and May 17, 3h. 53m., a.m. West Indies,
            May 7
1886
                                       Trinidad
                                                      I 0.D.
                               Italy, Eastern flank of Etna, connected with an eruption I B.
1886
           May-July
1886
             June 27
                               Caucasia, Shemaka I M. & O. Spain (Malaga) I Ti.
1886
             July
             July 23
                               Japan (S. Echigo, N.E. Shinano) I Mi.
1886
      Aug. 15 to end of
1886
              Sept.
                               Malta
                                               O.D.
                                       ight. Greece, Ionian Islands, S.W. Peloponnesus,
Dept. of Messenia, Filiatra, Gargaliano, Marathupolis,
1886
             Aug. 27
                               Midnight.
                                       also all Italy, Egypt, Malta and Syria III
                                       B., & O.D.
                               Friendly Islands, Niua-Fu Island I
1886
             Aug. 31
1886
            Aug. 31
                               U.S.A. (S. Carolina), Charlestown and Summerville
                                                                                                              III
                                       Ti. & F.R.
                               Italy, Coazze, Pinasca, throughout (Piedmont) and adjoining part of (Lembardy) I B.
1886
            Sept. 5
                               3h. 3m., a.m. Java, Sinagar, elsewhere in the (Preanger, Bantam, Batavia) 1 O.N.T.
            Sept. 22
1886
            Sept. 26
Oct. 20
Oct. 20
Oct. 22
Oct. 31
                               Asia Minor, Smyrna I Ti.
1886
                               India, Cashmere, Srinagar I Ti. & N.
4h. 30m., p.m. 64°W. 19°N., sea-quake I
U.S.A., Charlestown, Savannah, Summerville
1886
1886
                                                                                                       N.
1886
                               Servia, Cacak, Zablace II O.D.
Russian Turkestan, Tokmak and Verny I
Russian Turkestan, Tashkent II M. & O.
1886
1886
             Nov.
                      8
             Nov. 29
1886
                              Asia Minor, Smyrna, Chios II N. & Ti.
North Africa, Tunis, Ejenel? II Ti.
Japan (Sagami), Yokohama I N.
15h., G.M.T. Philippines, Panay Island, Iloilo (Antique
             Dec.
1886
                      4
             Dec. 11
1886
1887
             Jan.
                      ß
1887
             Jan. 15
1887
             Feb.

13h., G.M.T. Philippines, Panay Island, 11010 (Antique and Capiz) III S.M.
14taly and France, San Remo, Portomourizio and along the west of (Liguria), Nice, Marseilles III Ti. & B.
13h. 14m., G.M.T. Philippines, S.E. Luzon (Camarines), Nueva Caceres, Daet II S.M.
U.S.A. and Mexico (Arizona), Bavispe, Oputo, Arispe in Sonces Chiluahus, Guerrero, and along all the

1887
            Feb. 23
1887
            Mar. 24
1887
            May
                      3
                                      Sonora, Chihuahua, Guerrero, and along all the eastern slope of the Sierra Madre III O.B. 9m., p.m. West Indies, Trinidad I O.D.
            May
1887
                      5
                              3h. 39m., p.m. West Indies, Trinidad I O.D. Italy, Iesi in Ancona and along the Adriatic Coast
             May 26
1887
                               Mexico, Ayutla, origin coast of San Marcos I Bo.
Russian Turkestan, Verny, Sophiisk, Kopal, Gabrilovka,
         May 29 & 30
1887
             June 9-28
1887
                                       Oksuisk, Karakul, Prjevalski and Valley of the Ili
                                       III M. & O., Ti., & N.
                               1h. 17m., p.m. Sumatra and Java, Benkoelen, Taloe and Batavia I O.N.T.
1887
             June 13
                               Ecuador, Guayaquil I Ti.
1887
             June 29
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A.D.
                        Caucasia, Batum, Ozurgeti and Kutais I M. & O.
1887
          July 16
                        Asia Minor, Rhodes Island, Crete, Chios, Canea I N. Egypt, Cairo, Suakin, and Nile Valley I Ti.
1887
          July 17
          July 17
July 17
1887
                        Crete and Rhodes I B.
1887
                        6h. 29m., p.m. Ecuador, Cuenca
1887
          Aug. 2
                 5
                        Algeria, Laghouat I Ti.
1887
          Aug.
                        Mexico, especially Chilpane
Hildago) I O.B. & N.
          Aug. 28
                                                 Chilpancingo (Guerrero,
                                                                                 Morelos,
1887
                         Russian Turkestan, Verny II
                                                             M. & O.
1887
          Sept. 9
          Sept. 23
                        7h. a.m., also 9h. 10m., a.m., also Sept. 24-26. West
1887
                               Indies, Bahamas, Inagua Island, Haiti, Port de
Paix III O.D.
                                             O. I
           Sept. 23
                         Bolivia, Yacuiva
                                                  Mon.
1887
                         Hungary, Temesvar
1887
        End of Sept.
                                                     N.
                         West Indies, Cuba, Santiago de Cuba II
           Oct. 2?
1887
           Oct.
                         Greece (Corinthia), Kiato, Xylo-Kastro
West Indies, Hayti II Ti.
                                                                       \mathbf{II}
1887
1887
           Oct. 16
                         West Indies, Hayti
                                                \Pi
           Oct. 28
                         Iceland, Southland, Reykjavik I
1887
                                                                  Th.
           Nov.
                         Italy, Forli, Rocca S. Casciano and around
1887
                  O
           Nov. 14
                         Austria (Carinthia and Styria)
                                                                 N.
                                                            1
1887
                                                                 Tı.
           Nov. 14
                         France, S. Saturnin, Cavaillon
                                                             I
1887
           Nov. 26
                         Mexico, Pinal de Amoles in Quarataro, San Luis Potosi,
1887
                               Hidalgo, Guanajuato
                                                        I
                                                            0.B.
           Nov. 28
                         Iceland, Southland, Reykjanes, some houses damaged
1887
                               Th.
                         Italy, Besignano, Mongrasso, S. Sofia, and neighbourhood
1887
           Dec.
                  3
                                              II B.
                               in (Cosenza)
                         China (Yunnan), Shihping in Linan Fu
1887
           Dec. 16
                                                                        III
                         Algeria I Ti. & N.
1888
           Jan.
                  8
                               om., a.m. West Indies (Grenada), St. George, Grenville, also Trinidad and Paria 11 N. & O.D.
                 10
1888
           Jan.
                         8h. 55m., a.m.
                         China (Yunnan), Shihping; (Ssuchuan), Luchou III N. 26th, 19h. 45m., G.M.T. Philippines, E. Mindanao, centre
1888
           Jan.
                 14
1888
           Jan. 27
                               Agusan River Valley I
                                                             S.M.
                                                В.
           Feb. 25
                         Italy, Stromboli I
1888
        Mar. 13 & 15
                               11m., a.m. Celebes, Gorontalo in O.N.T.
1888
                         2h.
                                                                             (Menado) I
           April 2
                         Switzerland (Glarus), Linthal, Elm
                                                                  I N.
 1888
           April 12
                         Austria, Odenburg, Eisenstadt, Pottendorf
 1888
                         China (Yunnan), especially the towns Shipin, Chenshui and
Peiyuangting III M. & O.
Norway and Islands of Vaerö and Röst I N.
 1888
           April
 1888
           May
           May 15
                         Caucasia, Erivan I M. & O.
 1888
                         May 30th at 6 a.m. and June 2nd at 4.30 p.m.
East Indies, Boeleleng in Bali II O.N.T.
        May 24 to
 1888
                                                                                   Dutch
           June
                          North China, Chefoo, Tientsin, Newchang II
Italy, Teramo in the Abruzzi I B.
           June 13
 1888
 1888
           July
                  -8
           July 14
                          Honduras, earthquake and storm
 1888
                          Italy, S. Lorenzo, Nuovo (Viterbo) I B.
6h. 39m., G.M.T. Philippines, N.E. Luzon (Cagayan,
 1888
          Aug.-Sept.
           Aug. 19
 1888
                         6h.
                                Isabela) I S.M.
           Aug. 21
                          8h. 32m. p.m. Sumatra, Solok and Loeboe Selassi in the
 1888
                                Padangsche Bovenland I O.N.T.
                          New Zealand, North Canterbury, Amuri, Christchurch
Ti. & O.D.
 1888
           Sept. 1
 1888
           Sept. 1
                          Mexico, Tetzilacatlan in (Guerrero, Mexico, Morelos, Tlax-
                                       I Ti.
                                cala)
                                          0.B.
 1888 Sept. 9
1888 Sept. 16
1888 Sept. 22, 23-26
                         Greece III
                          Russian Turkestan, Verny and Pischpek
Armenia, Ardahan, Okan II M. & O.
           Sept. 27
 1888
                          Evening. Java, Kerangpandon in Socrakarta
                                                                                    O.N.T.
                   7
                          Mexico, Papantla and elsewhere in Vera Cruz
 1888
           Oct.
           Oct. 10
Nov. 10
Nov. 28
 1888
                          India (Burmah), Rangoon I O.D. & Ti.
Bosnia, Stolac I Ti.
 1888
                               ian Turkestan, Tashkent, Kojent and places east of Tashkent I M. & O.
 1888
                          Russian
           Nov. 29 &
           Dec. 3
Dec. 20
Dec. 23
  1888 -
                          Russian Turkestan, Verny and Kopal
                                                                      I M. & O.
  1888
                          Costa Rica, San José, Alajuela II
                                                                    Ti.
  1888
                          India, Calcutta I N.
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A.D.		
1888	Dec. 28	Baluchistan, Quetta II N.
1888	Dec. 30	4h. 21m., a.m., local. Costa Rica, San José, Alajuela, Heredia III N. & O.D.
$\frac{1888}{1889}$	Jan. 1	Formosa, Unrin II H. 2h. 20m., G.M.T. Philippines, N.E. Mindanao (Surigao,
1889	Jan. 14	Butuan) II S.M. Greece Sparts III N. Ti gives Ian 17
1889	Feb. 5	 Greece, Sparta III N. Ti. gives Jan. 17. 7h. 53m., G.M.T. Philippines, W. Mindanao (Zamboanga), Basilan Island (Cotabato and Lanao), epicentre south of Illana Bay II S.M.
1889	Feb. 13	France and Switzerland, Fleurier, Jura Mountains II N.
1889	Feb. 18	France, Isère, Pont de Beauvoisin I N.
1889	Feb. 18	Japan, Tokio, Yokohama, (Sagami, Musashi, Shimosa, Kazusa and Awa) I Mi.
1889	Feb. 25	Russian Turkestan, Verny I N. Gold Coast, Accra, Aburi I N. 25th, 18h. 23m.,G.M.T. Philippines, S. Luzon (Batangas),
1889	April 5	Gold Coast, Accra, Aburi I N.
1889	May 26	and N. part of Mindoro, Taai, Ibaan, Calapan II
1889	May 30	France, Cherbourg I Ti.
1889	June 13	France, Cherbourg I Ti. China (Shantung), Yenchou Fu; (Chihli), Paoting Fu, Hochien Fu, Tiensin Fu II Ho. Halv. Tolmezzo, Caneya, and neighbourhood in (Udine) I
1889	June-Oct.	Italy, Tolmezzo, Ćaneva, and neighbourhood in (Udine) IB.
1889	July 12	Russian Turkestan, Djarkend or Dsharkent, Prjevalsk or Prshewalsk III N.
1889	July 19	U.S.A., Tennessee, Memphis I F.R.
$\frac{1889}{1889}$	July 19	10h. 42m., a.m. Moluccas, Batjan in Ternate I O.N.T. Japan, Kyushu, part of Shikoku (Higo) Kumamoto III
	July 28	0.
1889	Aug. 17	Bosnia, Mostar, Ostrojac or Ostrosatz, Konjica I N. Ti. gives 16th.
1889	Aug. 17	Mexico, Teloloapan (Guerrero) II O.D.
1889	Aug. 26	Greece, round the Gulf of Corinth II Ti. & N.
1889	Aug. 27	U.S.A., California, Los Angeles, Pasadena I Ti.
1889 1889	Sept. 4 Sept. 6	7h. 37m., p.m. Java, Rendang in Japara II O.N.T. 12h. 43m., a.m. Celebes and Moluccas (Na Lewet) and Minahassa in Menado and Batjan in Ternate I O.N.T.
1889	Sept. 18	7h. 8m., a.m. Java, <i>Bondowoso</i> and other places in Besoeki I O.N.T.
1889	Oct. 6	trict, epicentre in the Valley of the Agusan River II
1889	Oct. 13	S.M. Iceland, Reykjanes Peninsula, a few houses damaged I Th.
1889	Oct. 23	Mexico (Guerrero), Coahuayutla I O.D.
1889	Oct. 25	Turkey, Dardanelles I Ti.
1889	Oct. 28	9h. 45m., a.m. Asia Minor, Mitylene, Sigri Lighthouse II
1889	Nov. 19	Russian Turkestan, N.E. Shores of Lake Issyk-kul, Uital, Saizewka, District of (Verny); shocks until Dec. III N.
1889	Nov. 28	Italy, Acciano in the Abruzzi I B.
1889	Dec. 1	Servia, Kragojevatz, Jagodina, Kupsia? Kuprija and Paracin I Ti.
1889	Dec. 8	Italy, Vico, Cagnano Varano, etc., in the Gargano Peninsula and the neighbouring coast of (Apulia) I B.
1889	Dec. 12-13	Italy, Sicily, Zafferana and Acircale on the S.E. flank of Etna I B.
1890	Feb. 7	6th, 16h. 10m., G.M.T. Philippines (N. Leyte), Carigara, Barugo and other towns II S.M.
1890	Feb. 24	Canada, Queen Charlotte Islands, Skeena II N.
1890	Feb. 24 Mar. 26	Italy Longarona and anyirons in (Rolling) I B
1890	April 13	6h. 4m., G.M.T. Philippines, N. Luzon (flocos Norte and Sur, Mountain Province, Cagayan, Isabela) I S.M.
1890	April 24	Peru? San Felipe I Mon.
1890	May 20	Peru ? San Felipe I Mon. Asia Minor, Kayi, Refahie III Ti.
1890	May 20 May 24-25	Italy, S.E. of Pantelleria Island I B.
1890	May 26	Armenia, Village of Kayi, District of Refahie II N.

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A.D.
              June 2
                                 Peru, Lima I
                                                          Ti.
1890
              June 20
                                 7h. 37m., a.m. Java, Wonogiri in (Soerakarta) and over
West Java I O.N.T.
1890
                                 Persia, between Meshed and Teheran, Tasch II
1890
              June 28
                                 4h. 49m., p.m. Java, Tjitjalengka and elsewhere in the
(Preanger) I O.N.T.
1890
              Oct.
                                          (Preanger)
              Oct.
                                                          West Indies, Trinidad
1890
                        5
                                 2h. 31m., a.m.
                                                                                                      O.D.
              Nov. 15
                                 5h. 30m., p.m. Scotland, Inverness I
4h. 30m., a.m. West Indies, Trinidad
                                                          Scotland, Inverness I
                                                                                                Ñ.
1890
                                                                                                I
              Nov. 20
                                                                                                      O.D.
1890
                                 Between 9h. 50m. and 10h. 20m., a.m. Moluccas, Banda-
              Nov. 23
1890
                                 Neira in Amboina I O.N.T.
Hungary, Pressburg I Ti.
1890
              Nov. 28
                                 Mexico II Ti.
1890
              Dec. 3
Dec. 12
                                 7h. 50m., a.m. Java, Djoewana in Japara and over great
part of Java II O.N.T.
1890
                                 U.S.A., North California I N.
U.S.A., Texas, Rusk I Ti.
4h., local. Algeria, Gouraya, Villebourg, Philippeville,
Blidah III N. Ti. gives II
1891
              Jan.
1891
              Jan.
1891
              Jan. 15
                                 Armenia, Van, Adeljiwaz III Ti.
11h. 30m, p.m. Java, Gombong in Bagelen, (Cheribon,
1891
              April 3
              April 30
1891
                                         Preanger and Semarang) I O.N.T.
                                 4h. 22m., p.m. Java, Wonogiri in Soerakarta and Toe-
loeng Agorni in (Kediri) I O.N.T.

Italy, Tregnano, Badia Calavena and neighbourhood in
(Verona), felt over all North Italy and in Trieste
1891
              May 5
1891
              June 7
                                          ÌΙ Β.
                                 India, Bengal, Serajgunj, Dhamra I N. & Ti.
12h. 10m., G.M.T. Philippines, E. Mindanao (Butuan and
1891
          June 17 or 18
1891
              June 25
                                          Davao) districts; centre in Agusan River Valley
                                          II S.M.
              June 29
July 26
                                 U.S.A., California, San José I N. U.S.A., Indiana, Evansville I N.
1891
1891
              Aug.
                                 Italy, Lugo in (Romagna)
                                                                          I
1891
                                 Central Bolivia I Mon.
              Aug. 15
1891
                                 1h. 55m., a.m. Salvador, San Salvador, Comasagua,
Analquito, Santa Tecla, San Pedro III N.
1891
              Sept. 9
                                 Italy, Montecassino in (Caserta) I B.
1891
              Oct.
                                 Italy (Perugia), Sallano I B.
1891
              Oct. 6
Oct. 11
                        6
                                 U.S.A., California, Napa I N.
Italy, Pantellaria Island; su
eruption I N. & B.
Japan (Mino, Owari) III O.
1891
             Oct. 14-26
                                                                              submarine with volcanic
1891
              Oct. 28
Dec. 22
1891
                                 Italy, Sondrio and neighbourhood in (Lombardy)
                                                                                                                    В.
1891
                                Italy, Sondrio and neighbourhood in (Lombardy) I B.
Italy, Campazzi, Salo in the basin of Lake Garda I B.
Tasmania I Ti.
Philippines, Batanes Islands, San Domingo and other
towns on Batan Island II S.M.
Italy, Alicuri, Filiduri, Saliva, Lipari Islands and felt in
Sicily and (Calabria) II B.
12h. 58m., G.M.T. Philippines, N. Luzon (Pangasinan,
Union and Abra provinces): reported at 16h. 34m.
1892
              Jan.
                        6
1892
              Jan.
1892
              Mar.
1892
              Mar. 16
1892
              Mar. 16
                                          Union and Abra provinces); reported at 16h. 34m.
                                 on same day, also on the 26th and 28th III S.M. U.S.A. (Oregon), Portland I Ti. U.S.A. (California), Oakville, Winters, Dixon, San Fran-
1892
              April 17
1892
            April 19-21
                                         cisco I N. & Ti.
1892
              April 22
                                 Formosa, Anpin I H.
                                 Italy, Peninsula Garganica in (Apulia) I
                                                                                                   В.
1892
            April-June
              May 16
May 17
May 17
                                 Philippines, Guam in the Ladrones II S.M.
1892
                                 Italy (Emilia), Carpineti I B.

1h. 18m., p.m. Sumatra, Padang, Sidempocan in Tapanoeli (Benkoelen, Palembang) and east coast of Sumatra I O.N.T.
1892
1892
1892
                                 Mexico, Guadalajara II N.
              June 24
                                 Italy, Claut and neighbourhood in (Udine) I B.
Italy, Badia Calavena and Valli dei Signori in (Verona) and parts of (Vicenza) I B.
Italy, Sicily, Zafferana, Calanna, etc., near Etna I B.
Central America? San Cristobal? III Ti.
1892
              June 24
June 30
1892
1892
              July
                        7
                       4 ?
1892
              Aug.
                                 Italy, Badia Calavena, Chiampo, etc., in (Verona) I B.
1892
              Aug. 9
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A.D.		
1892	Sept. 29	Spain, Huelva I N. & Ti.
1892	Oct. 14	Roumania, Bucharest, Olteniza I N. & Ti.
1892	Nov. 21	Italy (Perugia), Fraceano, Cafirenze, etc., near Citta di
1000	D 0	Castello I B.
$\frac{1892}{1892}$	Dec. 9	Japan, West of part (Noto) II O.
1892	Dec. 20	Oh. 20m., G.M.T. Baluchistan, Shalabagh, Sanzal, Old
	Dec. 29 to	Chaman III N.
1892-		Italy, Castel del Rio, Monzuno, etc., in (Romagna) I B.
1893	Jan. 25	Italy, Castel del Rio, Monzuno, etc., in (Romagna) I B. Italy, Salerno and neighbouring parts of (Basilicata) I
		В.
1893	Jan. 31-Feb. 3	Greece, Zante, also at Patras III N. & Ti. New Zealand, Wellington, Nelson I N. & O.D.
1893	Feb. 12 Feb. 13	New Zealand, Wellington, Nelson I N. & O.D.
1893		Baluchistan, Quetta II N.
1893	Feb.	Turkey, Samothraki Island III N.
1893	Mar. 9	8th, 16h. 35m., G.M.T. Philippines, Central Luzon (Nueva
1009	A	Vizcaya, Abra, Pangasinan) I S.M.
1893	April 8	Servia, Belgrade, Morava Valley, Pozarevac, Svilajnac, Gradiste II N. Ti. gives April 10 and III
1893	April 12	
1000	April 12	5h. 48m., G.M.T. Philippines (Camarines, Albay, Sorsogon, Masbate) and North Samas I S.M.
1893	April 17	5h. 29m., Greece, Zante, also at Patras III N. & O.D.
1893	April 19	10h. 40m., p.m. Dutch East Indies, Boeleleng in Bali 1.
		O.N.T.
1893	April 22	Italy, S. Piero Patti, S. Barbora and Monte Albano Elicona (in Messina) I B. Servia, Moraya Valley I O.D.
		Elicona (in Messina) I B.
1893	May 20 & 31	Servia, Morava Valley I O.D.
1893	$\mathbf{June} \ 3$	2nd, 22h. 23m., G.M.T. Philippines, W. Mindanao,
* 000		Illana Bay II S.M.
1893	June 11	Servia, Morava Valley I O.D. 2nd, 22h. 23m., G.M.T. Philippines, W. Mindanao, Illana Bay II S.M. 8h. 17m., a.m. Sumatra, Tebing, Tinggi in Palembang
1002	Tuna 19	11 O.N.1.
1893	June 12	7h. 57m., a.m. Sumatra, Manna, Kauer (Benkoelen), Lam-
1893	June 14	pong, Palembang III O.N.T. Austria, Chimara, Kue in Epirus I B.
1893	June 21	6h. 50m., G.M.T. Philippines, E. Mindanao, Agusan
1000	ounc 21	River Valley III S.M.
1893	July 1	June 30, 2h. 8m., G.M.T. Philippines, E. Mindanao,
	•	June 30, 2h. 8m., G.M.T. Philippines, E. Mindanac, Agusan River Valley II S.M.
1893	Aug. 2	Italy, Montereale in (Aguila) 1 B.
1893	Aug. 5	Austria, Styria, Mur Valley II N.
1893	Aug. 10	Italy, Mattinata and Southern shore of the Peninsula Garganica II B.
1009	Clamb 0	Garganica II B.
$\begin{array}{c} 1893 \\ 1893 \end{array}$	Sept. 6 Sept. 7	Shocks until Nov. China (Yunnan), Linan Fu I Ho. Japan, Kagoshima III O.
1893	Sept. 8	Sapan, Kagoshina III U.
1893	Oct. 27	Italy Language Form di Almaga and naighbourhood
1000	000. 21	Servia, Morava Valley II O.D. Italy, Longarone, Farra di Alpago and neighbourhood (Belluno) I B.
1893	Nov. 5	India (Punjab), Peshawar, Naushara I N.
1893	Nov. 14	8h. 55m. Greece, Salamis I O.D.
1893	Nov. 17	8h. 23m., a.m. Russian Turkestan, Kassan, Samarkand
		III N. & Ti.
1893	Nov. 27	Canada, Montreal I N. & Ti.
1893	Dec. 24	23rd, 16h. 24m., G.M.T. Philippines, S.E. Luzon, North
1004	171-1- O	Samar, N.E. Masbate Island I S.M.
1894	Feb. 9	Italy, Bosco Chiesa, Velo Velonese, etc., between the
1894	Feb. 10	Adige and the Chiampo Brook (Verona) I B.
1004	reo. 10	9th, 16h. 42m., G.M.T. Philippines, S.E. Mindanao, East Davao Gulf II S.M.
1894	Feb. 18	Davao Gulf II S.M. 17th, 21h. 23m., G.M.T. Philippines, Mindanao, Agusan
2002	2001 10	River Valloy I S M
1894	Mar. 16	Italy Pantallania I R
1894	Mar. 22	Japan, Yezo, (Kushiro, Nemuro) II O. Italy, Lesin (Foggia) I B. 1st, 18h. 34m., G.M.T. Philippines, Central Luzon
1894	Mar. 26	Italy, Lesin i (Foggia) I B.
1894	April 2	1st, 18h. 34m., G.M.T. Philippines, Central Luzon
1004	A 11 00	(Nueva Ecija, Pangasinan, Benguet) 1 S.M.
$\frac{1894}{1894}$	April 20	Colombia and Venezuela Cucuta, Maracalbo I Tl.
1004	April 27	Greece, district between Thebes, Lividia, Atlanta and Chalcis III O.D. N. gives April 20 and May 1.
1894	April 27	Evening, Java, Panaroekan and elsewhere in (Besoeki)
1001	Trbin 21	I O.N.T.
		+ \/1+11+1

Jan.

N. & Ti.

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A.D.
 1894
            April 28
                            Venezuela, Merièda II O.D.
 1894
            May 21
                            New Zealand, Wellington, Nelson, Christchurch
            May \overline{28}
                            Italy, Viggianello, Rotonda, Castelluccio and neighbour-
 1894
                            hood (Basilicata) I
Algeria, Oran I N. & Ti.
 1894
            June 19
                            Algeria, Oran 1 K. & L. 66h. 56m., p.m. Java, Besoeki I O.N.T. Japan, Tokio I O. 28th, 18h. 57m., G.M.T. Philippines, Agusan River Valley II S.M.
 1894
            June 19
 1894
            June 20
            June 29
 1894
                                                                 Philippines, E.
                                                                                       Mindanao.
                                  Agusan River Valley II
21h. 50m., G.M.T. Pl
Agusan River Valley II
            June 30
                                                                 Philippines, E.
 1894
                                                                                       Mindanao,
                                                                    S.M.
                            4h. 15m., p.m. Java, Besocki I O.N.T.
Turkey, Constantinople, Pera, S. Stefano, Tchataldcha to
 1894
            July
 1894
            July 10
                           Ada-bazar along the Gulf of Ismid, Island of Chalki
and Antigoni III N. & Ti.
U.S.A. (Utah), Ogden I F.R.
 1894
            July 18
July 26
                           0h. 35m. Greece, Douka (Elis) I
Servia, Varna II Ti.
1894
            July 26
1894
            Aug. 7-8
                            Italy, Fleri, Pisano, Scaechiere, Zerbate (Catania)
 1894
                                                                                                  В.
                                                                                            П
            Sept. 2
                           Roumania, Bucharest and other Roumanian towns
1894
                                                                                                 Ti.
1894
            Oct.
                           Prussia, Dortmund II Ti.
                           New Hebrides, Ambrym, with eruption I Ti.
9h. 21m., a.m. Sumatra, Manna (Benkoelen, Palembang)
over west of Java II O.N.T.
Japan (Ugo), Shonai II O.
 1894
            Oct.
                   15
            Oct. 20
1894
1894
            Oct. 22
                  23
                           U.S.A., California, San Diego
                                                                  I
1894
            Oct.
                                                                       F.R.
                           Argentina, La Rioja, San Juan, La Paz, Cordova and
Rosario II Mon., N. & Ti.
Venezuela, Carache I O.D.
22h. 53m. Mexico, Mexico City I Pe.
1894
            Oct. 27
1894
            Nov.
            Nov.
1894
                           Italy, especially between Palmi and S. Cristina on the
            Nov. 16
1894
                                  north-western side of Aspromonti in (Calabria), felt
                           over Eastern Sicily or South Italy II
2h. 10m., a.m. Celebes, Tontoli I O.N.T.
            Nov. 20
1894
            Nov. 27
                           Italy, Brescia and other places near the Lake of Isio
1894
                                                                                                  в.
                           Servia, Morava Valley I O.D.
India, Burma, Rangoon II O.D.
1894
            Nov 28
1894
            Dec. 10
         Dec. 13 & 14
1894
                           10h. 35m., p.m. South Hungary (Kiasso), Oravica
           Dec. 19
Dec. 27
1894
                                                                                                 N.
                           Italy, Island Filicuri in the Lipari Islands I
1894
         Dec. 30
Jan. 7 & 17
                            17h. 12m. or 31st, 5h. 12m. Mexico, Mexico City
1894
                                                                                                Pe.
                            Persia (Khorasan), Kuchan, Meshed III N. & Ti.
1895
           Feb. 27
                           Italy, Claut (Udine) and neighbourhood I
1895
           Mar. 23
April 13
1895
                           Italy, Comacchio, Ostellato (Ferrara) I
                                                                               В.
                           Italy, Licodia and Vizzini in (Syracuse) and in (Catania)
I B.
1895
                                    в.
1895
                           Austria and Italy, from Gemona in (Friuli) to Venice and
           April 14
                                  felt also in (Lombardy), centre at Lubiana in Austria
                           I B., N., & Ti.
Greece, Atalanta I Ti.
1895
           May
                   1
                           Greece and Turkey (Albania), Paramythia, Dragani III
Ti. & N.
1895
        May 13 or 14
                           13th, 22h. 42m., G.M.T. Philippines, N. Mindoro, Cala-
pan II S.M.
1895
           May 14
                           West Indies, Antigua, Montserrat, Nevis, St. Kitts and Barbuda I N. O.D. gives May 29.

Italy, Spoleto and neighbourhood I B.
           May 20
1895
                  20
1895
           May
                           Italy, Crespino, Papozze and Rovigo (Ferrara)
1895
           May
                  25
1895
                           13h. 56m., G.M.T.
II S.M.
                                                     Philippines, N. Mindoro, Calapan
           June
                           Italy, Follino and Valmareno in Treviso I I
Italy, Island of Kremiti, Chietino (Apulia) I
New Zealand, Taupo II Ti.
1895
           June 10
1895
           Aug.
                   9
           Aug. 18
1895
                           Peru, Chincha Island
                                                            Ti.
1895
           Aug. 19
                                                      II
           Sept. 4
Oct. 25
1895
                           Italy, Querciolano (Tuscany)
                                                                      в.
1895
                           Italy, Poggibonsi and neighbourhood in (Siena)
                                                                                            В. -
1895
           Nov.
                           Italy, Rome and country towards the sea Spain (Orense, Galicia) I N.
           Dec. 25
1895
                           Spain (Orense, Galicia)
                           Persia, Khalkhal, North of Mianeh, Goi, Gangabad III
1896
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A.D. 1896	Mar. 2	Mexico (Jalisco), Colima, San Gabriel and many other
1896 1896 1896 1896 1896 1896	Mar. 12 Mar. 12 Mar. 14 Mar. 18 April 17 April 18 May	places I O.D. Russia, Odessa I Ti. Roumania, Jassy and Neamtu (Avramesei) I O.D. 1h. 16m. Chile, Santiago and Valparaiso II Ti. & Mon. Italy, Acireale (Catania) I B. Italy, Monte S. Angelo (Foggia) I B. Dutch East Indies, Alor in Timor III O.N.T. U.S.A., Alaska, Orca II F.R.
1896 1896 1896	June 15 June 29 June 30	N.E. Japan, Kamaishi, chiefly sea waves III O. Cyprus, Limasol III N. Ti. gives July 5. 8h. 9m., p.m. Java, Sendoero in Probolinggo (Pasoeroean, Besoeki) I O.N.T.
1896 1896 1896	July 8-9 July 9 Aug. 15	Italy, Granaglione (Bologna) I B. Russia, Caspian Sea I N. 4h. 40m., p.m. Java, Patjitan in Madioen and over the
1896	Aug. 19	6h. 18m., p.m. Java, Toeloeng Agoeng and elsewhere in (Kediri) I O.N.T
1896	Aug. 26	hundred farms and over 2,000 cattle-sheds fell and more damaged III Th.
$1896 \\ 1896 \\ 1896$	Aug. 31 Sept. 6 Sept. 13	Japan (Uzen, Ugo), Akita, Rokugo II O. Iceland II N. 4h. 56m., G.M.T. Philippines, N.W. Luzon (Ilocos Norte, Mountain, Cagayan), Laoag, Aparri I S.M.
1896	Oct. 16	Italy, San Remo, Oneglia and other places in Western
1896	Nov. 2	11h. 59m., a.m. Java, Pameungpeuk, Boengboelang in the (Preanger, Batavia, Cheribon, Kedoe, Banjoemas, Semarang, Kediri), Bagelen I O.N.T.
1896 1896 1896 1896 1897	Nov. 13 & 14 Dec. 1 Dec. 17 Dec. 29 Jan. 6, 7, & 19	Asia Minor, Aldin, Bergama I N. Italy, Pontebba (Udine) I B. 5h. 30m., a.m. England, Hereford I N. 4h. 5Im. Greece, Yannitsa or Calamata I O.D.
1897 1897 1897 1897	Jan. 11 Jan. 17 Jan. 17 Jan. 18	Italy, Vallo di Nera, Spello and other places in (Umbria) I B. Persia, Kishm II Ti. & N. Japan (Shinano), Nagano III O. Turkey, Epirus, Delvino II Ti. & N. 17th, 18h. 35m., G.M.T. Philippines, N. Luzon (Mountain,
1897 1897	Feb. 15 Feb. 16	Isabela, Cagayan) I S.M. Servia, Vranji, Mostanica, Ristobac II O.D. 15th, 21h. 4m., G.M.T. Philippines, E. Mindanao, Agusan River Valley II S.M.
1897 1897 1897	Feb. 20 Mar. 15 April 8	Japan, Sendia III O. Celebes, the Island Kajoewadi I O.N.T. 13h. 20m., G.M.T. Philippines, E. Mindanao, Agusan River Valley II S.M.
1897	April 29	Kitts, Dominica II N. & O.D.
1897 1897 1897	May 3 May 10 May 13	North Coast of Iceland I Th. S. Australia, Kingston, Robi, Beachport I O.D. 11h. 22m., G.M.T. Philippines, Masbate and neighbouring Islands II S.M.
1897 1897	May 15 May 28	Italy, N.W. Sicily and Ustica Island I B. Italy, S.E. Sicily, Terra d'Otranto and South Italy, felt over most of the Peninsula; most violent in Greece
1897 1897	June 5 June 12	I B. Mexico (Oaxaca), Juchitan I O.D. 11h. 5m., G.M.T. India, Calcutta, Assam, Shillong, Gauhati, Goalpara, Dhubri III N. & Ti.
1897 1897 1897	July 15 July 27 Aug. 15	Austria, Laibach I N. Italy, Ponsacco, Pontedera (Pisa) I B. 12h. 17m., G.M.T. Philippines, N. Luzon (Ilocos Sur),
1897 1897 1897 1897	Aug. 29 Sept. 18 Sept. 20 Sept. 21	Candon and Vigan II S.M. Servia, Morava Valley I O.D. Russian Turkestan, Samarkand, Tashkent I N. & Ti. Peru, Liam, Matucana I N. Italy, Sinigallia, Fano, Mondolfo (Ancona) I B.

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A.D.

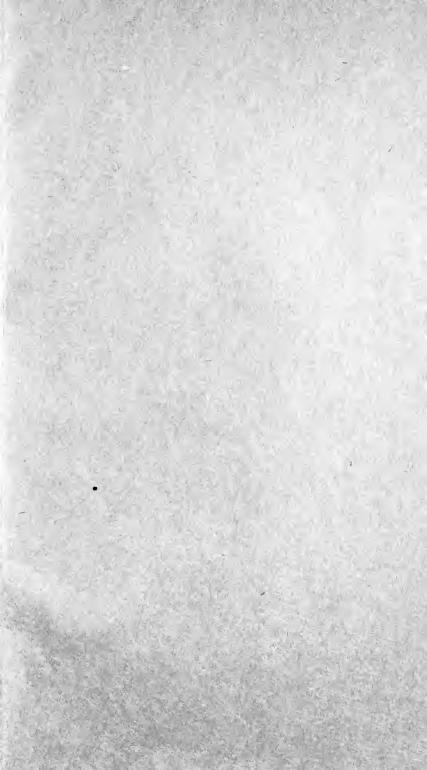
20th, 19h. 10m., G.M.T. Philippines, N.W. Mindanao (Dapitan) district II S.M.
5h. 15m., G.M.T. Philippines, W. Mindanao, Sulu district (Basilan, Zamboanga), and Jolo Island; it caused the greatest sea tide ever recorded in the control of the c
 1897
                     Sept. 21
                     Sept. 21
 1897
                                                Philippines III S.M.
7th, 21h., G.M.T. Philippines, Davao I S.M.
9h. 5m., G.M.T. Philippines, N. Samar Island, Sulat,
Catubic Oras, Lacang III S.M.
                                                            Philippines
                                                                                      III
                                                                                                    S.M.
 1897
                     Oct.
 1897
                     Oct. 19
                                                          Palapag, Catubic, Oras, Laoang III S.M.
15m., G.M.T. Philippines, Visayas Island and N.
 1897
                     Oct. 19
                                                            Samar II S.M.
                                                3h. 25m. Greece, Leukas or Santa Maura I O.D. 0h. 59m., G.M.T. Philippines, N. Luzon (Ilocos Sur),
 1897
                     Nov.
                     Nov. 14
 1897
                                                             Vigan, Candon I S.M.
                                                New Zealand, Wellington, Wanganui I O.D. Italy, places North of C. di Castello (Umbria) I B. West Indies, Montserrat I O.D.
                     Dec.
 1897
 1897
                     Dec. 18
 1897-8 Dec. & Jan.
                                                Moluccas II Ti.
 1898
                     Jan.
                                                           15m., G.M.T. Philippines, W. Mindanao, Basilan, and Zamboanga district, Sulu Island II S.M. Indies, Montserrat I N.
                     Jan. 30
                                                11h. 15m., G.M.T.
 1898
                  Feb. 15-20
                                                West Indies, Montserrat I
 1898
                    Feb. 28
 1898
                                                Asia Minor, Balikesri
                                                West Indies I Ti.
                     Mar.
 1898
 1898
                    Mar.
                                    4
                                                Italy, the Apennines of Parma and Reggio and over North
Italy I B.
                                                U.S.A., California, Mare Island, San Francisco, Vallejo
F.R. & N.
 1898
                    Mar. 30
                                                Italy, S. Maria di Licodia, Biancavilla (Catania) near Etna
1898
                    May 14
                                                           I B.
                                               22h. 5m., Greece (Arcadia), Tripolitza I
Peru (Ica), Ica I H.J.
Italy, Rieli, Cittaducale, Srufina (Umbria)
1898
                     June
                    June 20
1898
1898
                     June 28
                                                Hungary, Sinj in Dalmatia III
1898
                    July
                                               Chile, Concepcion, Telcahuano I Mon.

Hungary, Giannina in Epirus I B.

Japan (Chikuzen), Itoshimagori II O.

Italy, Messina and other places in Sicily and in Calabria I B.
                    July 23
1898
                    July 31
1898
                    Aug. 10
Aug. 10
1898
1898
                    Aug. 25
                                                Italy, in the villages round Visso (Macerata)
1898
                                               China (Shansi), Taichou II "North China Herald"
11h. 23m., 11h. 37m., and 11h. 56m., p.m. Java, Soeka-
1898
                    Sept.
                    Nov. 2
1898
                                                           poera, Tegikadjang, Pakendjeng and (Preanger) I O.N.T.
                                                                                                                                               elsewhere in
                                               19h. lm. Greece, Kyparissia I
1898
                    Nov.
                                                                                                                         O.D.
                    Nov. 20
                                                          46m.,
O.N.T.
                                                                                       Moluccas, Saparoea in Amboina
1898
                                           ~_ 5h.
                                                                         \mathbf{p.m.}
                                                           Bm. S.W. coast of Greece (Peloponnese), Philiatra, Kyparissia III Ti.
1899
                    Jan. 22
                                               8h. 13m.
                                               Mexico, Chilpancingo and in the State of Puebla, Vera
1899
                    Jan. 24
                                                           Cruz, Michoacan, Guerrero, Oaxaca I Ti. & O.D.
                                               Iceland, Reykjanes Peninsula, Reykjavik, a few houses
1899
                    Feb. 27
                                               damaged I Th.
0h. 45m., G.M.T. Japa
                                              damaged 1 11.
Oh. 45m., G.M.T. Japan near Nagoya II Mi.
Salvador near San Vicente II O.D.
1899
                   Mar.
                   Mar. 24
1899
                                               Argentina, Rioja, Catamarca, Tu
Santiago del Estero I Mon.
                    April 12
1899
                                              19h. 5m. Greece, Ligoudista I
West Indies, Montreat I Ti.
1899
                   May
                                                                                                                         O.D.
                 May 17
July 19
Aug. 13
Sept. 3-10
1899
                                              Italy, Rome I Ti.
Portugal, Lisbon I
1899
1899
                                               U.S.A., Alaska, Yakutat Bay III F.R.
Asia Minor, Aidin, Smyrna, Meander Valley
1899
                   Sept. 20
1899
1899
                   Sept. 25
                                               India, Darjiling III? Ti.
                   Oct. 12
Oct. 29
                                                                                                                    Ti.
1899
                                              Moluccas, Ceram, Ambon
                                                                                                         III
                                              Java, Bengboelang and elsewhere in (Preanger and Cheribon)
1899
                                                          I O.N.T.
                                              U.S.A., S. California, San Jacinto, Riverside Co. I F.R. 25th, 20h. 20m., ...M.T. Philippines, Mindanao, Agusan River Valley I S.M.
1899
                   Dec. 25
                   Dec. 26
1899
1899
                   Dec. 31
                                              Caucasia, Tiflis, Acalkalaki III N.
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